BARNES & THORNBURG

Laurence A. McHugh (219) 237-1191

US EPA RECORDS CENTER REGION 5

600 1st Source Bank Center 100 North Michigan South Bend, Indiana 46601 (219) 233-1171

TWX 810-341-3427 B&T LAW IND Telecopier (219) 237-1125

July 2, 1993

VIA FEDERAL EXPRESS

Ms. Catherine Garypie
Assistant Regional Counsel
Office of Regional Counsel
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY - Region V
77 West Jackson Street CM 3-T
Chicago, Illinois 60604

RE: Request for Information Pursuant to 42 U.S.C. § 9604(e) for the Powell Road Landfill, Huber Heights, Ohio

Dear Ms. Garypie:

The undersigned are counsel for Systems Research Laboratories, Inc., a wholly-owned subsidiary of Arvin/Calspan ("SRL"), and on behalf of SRL, submit the following responses to the above-referenced Request for Information.

<u>INFORMATION REQUEST NO. 1.</u>: Identify all persons consulted in the preparation of the answers to these Information Requests.

RESPONSE TO NO. 1: The responses to these Requests were prepared as a result of consultation between and among:

Wayne A. Crist, Director Personnel & Support SYSTEMS RESEARCH LABORATORIES Div. of Arvin/Calspan 2800 Indian Ripple Road Dayton, Ohio 45440-3696

Jack G. McCroskey
Facilities Manager
SYSTEMS RESEARCH LABORATORIES
Div. of Arvin/Calspan
2800 Indian Ripple Road
Dayton, Ohio 45440-3696

Indianapolis Fort Wayne South Bend Elkhart Washington, D.C.

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Jack Sparklin
Safety Manager
SYSTEMS RESEARCH LABORATORIES
Div. of Arvin/Calspan
2800 Indian Ripple Road
Dayton, Ohio 45440-3696

David M. Main, Esquire ARVIN INDUSTRIES INCORPORATED One Noblitt Plaza, Box 3000 Columbus, Indiana 47202-3000

<u>INFORMATION REQUEST NO. 2.</u>: Identify the source(s) of all documents consulted, examined, or referred to in the preparation of the answers to these Requests (e.,g., particular persons, plants, divisions or departments).

RESPONSE TO NO. 2: Documents consulted, examined or referred to in the preparation of these answers were obtained from the parties referred to in our response to Request No. 1, in addition to Messrs. James C. Rowland, Raymond Jeff Huffman and Earnest E. Keppler, all located at SRL in Dayton.

<u>INFORMATION REQUEST NO. 3.</u>: If you have reason to believe that there may be persons able to provide a more detailed or complete response to any Information Request or who may be able to provide additional responsive documents, identify such persons, and each request for which the person is identified.

RESPONSE TO NO. 3: SRL knows of no person who falls within the description set forth in this Request.

<u>INFORMATION REQUEST NO. 4.</u>: List the EPA Identification Numbers of the Respondent.

RESPONSE TO NO. 4: SRL's EPA Id. No. is OHD041065384.

<u>INFORMATION REOUEST NO. 5.</u>: Identify any persons, other than your employees, contractors, or agents, that may have caused the release or threat of release of hazardous substances, pollutants, or contaminants at the Site. Describe the acts or omissions which may have caused the release or threat of release of hazardous substances, pollutants, or contaminants at the Site and damages resulting therefrom.

RESPONSE TO NO. 5: (See response to prior 5.)

<u>INFORMATION REQUEST NO. 6.</u>: Identify each facility that Respondent owned or operated in Clark County, Ohio, Green County, Ohio, Miami County, Ohio, or Montgomery County, Ohio, from January 1, 1959, to December 31, 1985. List the name and address of each facility and the operating status of each facility (currently operating, closed, etc.) and identify the current owner or operator, if not the Respondent.

RESPONSE TO NO. 6: SRL began operation in 1955 in a building on Woods Drive, Beavercreek Township, Greene County, Ohio. A house adjacent to this building was acquired in 1958 to accommodate business expansion. A third building, located one block north of this facility, was built in 1961. The first building on the current site of SRL operations on Indian Ripple Road (known as the "IR Campus") was built in 1965. The IR Campus currently consists of seven buildings, all in operation. All facilities on Woods Drive in Beavercreek Township were vacated in 1991.

<u>INFORMATION REOUEST NO. 7.</u>: Identify all persons having knowledge or information about the generation, transportation, treatment, disposal or other handling of hazardous substances by you, your contractors, or by prior owners and or operators at any of the facilities identified in response to 6., above.

RESPONSE TO NO. 7: The persons identified in response to Request Nos. 1 and 2.

INFORMATION REQUEST NO. 8.: Did you ever use, purchase, store, treat, dispose, transport or otherwise handle any hazardous substances or materials from January 1, 1959, to December 31, 1985? If the answer to the preceding question is anything but an unqualified "no," identify:

- a. The chemical composition, characteristics, physical state (e.g., solid, liquid) of each hazardous substance;
- b. Who supplied you with such hazardous substances;
- c. How such hazardous substances were used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you;
- d. When such hazardous substances were used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you;

- e. Where such hazardous substances were used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you;
- f. The quantity of such hazardous substances used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you;

RESPONSE TO NO. 8:

SRL is a research, development, testing and evaluation ("RDT&E") organization. It is essentially a collection of small laboratories largely performing as a government contractor for specific agencies of the DOD, particularly the U.S. Air Force. Prior to 1985, SRL had no manufacturing activities at its facilities. The manufacturing activities since then have been small, batch-style projects. Wastes generated by these activities have been transported to RCRA facilities pursuant to Uniform Hazardous Waste Manifests. The Powell Road Landfill was not the Designated Facility for any of these shipments. SRL also disposed of materials from a one-time cleanup of residual materials in March 1983.

The manifests indicate that SRL had one shipment of 8 drums of waste trichloroethane on July 3, 1985. The transporter was McKesson Chemical, Cincinnati, Ohio, EPA Id. No. OHD039991690, and the Designated Facility was McKesson Envirosystems, New Castle, Kentucky, EPA Id. No. KYD0533328108.

On March 17, 1983, SRL made a one-time shipment of residual from a cleanup. The materials were shipped under "Industrial Liquid Waste Bill of Lading" and hauled by Solvent Resource Recovery, Inc. (EPA Id. No. OHD093945293) to its production facility in West Carrollton, Ohio. The materials consisted of 2 empty drums, 1 drum containing carbon black, 1 drum containing spent #2 fuel oil, 3 drums containing spent thinner, 5 drums containing spent poly chem, 1 drum containing spent jet fuel, 1 drum containing spent 1,1,1-TCA, and 4 drums containing spent methylene chloride. The best recollection of SRL personnel is that these materials were substances remaining from completed projects, which was not unusual for some of SRL's type of R&D programs during that time. A research project may be active for one to several years. At the completion of these programs, there can be project-unique substances remaining that were procured in support of the research program but not totally consumed. It is not uncommon for unique byproducts to be generated from these projects as well. Cost-Plus-Fee (CPF) research projects require materials used in support of the program and any materials or substances generated through the research efforts be retained until the government accepts the final results and reports. After acceptance, material not delivered to the government can be disposed of.

The shipments referenced above are the only shipments for which records or recollection exists between January 1, 1959, and December 31, 1985.

SRL has no records or information regarding the supplier of these materials or the exact date of purchase or use.

INFORMATION REQUEST NO. 9.: Did you or any other person working with you or on your behalf ever accept waste materials for transportation to the Site from any person between January 1, 1959, and December 31, 1985? If the answer to this question is anything but an unequivocal no, identify:

- a. The persons from whom you or such other persons accepted waste materials for transport to the Site;
- b. Every date on which waste materials were so accepted or transported;
- c. For each transaction, the nature of the waste materials accepted or transported, including the chemical content, characteristics, physical state (e.g., solid, liquid), and the process for which the material was used or the process which generated the material;
- d. For each material, describe any warnings given to you with respect to its handling;
- e. The owner of the materials so accepted or transported;
- f. The quantity of the material involved (weight or volume) in each transaction and the total quantity for all transactions;
- g. All tests or analyses and analytical results concerning each material;
- h. The price charged for transport and/or disposal per drum, barrel, container, load (or whatever unit used) of waste materials brought to the Site.

RESPONSE TO NO. 9: No.

INFORMATION REQUEST NO. 10.: Identify all persons, including yourself, who may have arranged for disposal or treatment or arranged for transportation for disposal or treatment of waste materials, including hazardous substances, at the Site or to the Site between January 1, 1959, and December 31, 1985. In addition, identify the following:

- a. The persons with whom you or such other persons made such arrangements, including, but not limited to, SCA, SCA of Ohio, SCA of Dayton, SCA-Miami County, Container Services, IWD, Koogler-Suburban, Blaylock Trucking, Dempsey Trucking, LTT Hauling, Elwood D. Vince, General Refuse, Delaney & Simpson, N & N Commercial Waste, Montgomery County, and Miami County;
- b. Every date on which such arrangements took place;
- c. For each transaction, the nature of the waste material or hazardous substance, including the chemical content, characteristics, physical state (e.g., solid, liquid) and the process for which the substance was used or the process which generated the substance;
- d. The owner of the waste materials or hazardous substances so accepted or transported;
- e. The quantity of the waste materials or hazardous substances involved (weight or volume) in each transaction and the total quantity for all transactions;
- f. All tests, analyses, and analytical results concerning the waste materials;
- g. The person(s) who selected the Site as the place to which the waste materials or hazardous substances were to be transported;
- h. The amount paid in connection with each transaction, the method of payment, and the identity of the person from whom payment was received;
- i. Where the person identified in g., above, intended to have such hazardous substances or waste materials transported and all evidence of this intent;

- j. Whether the waste materials or hazardous substances involved in each transaction were transshipped through, or were stored or held at, any intermediate site prior to final treatment or disposal;
- k. What was actually done to the waste materials or hazardous substances once they were brought to the Site;
- l. The final disposition of each of the waste materials or hazardous substances involved in such transactions;
- m. The measures taken by you to determine the actual methods, means, and site of treatment or disposal of the waste material and hazardous substances involved in each transaction:
- n. The type and number of containers in which the waste materials or hazardous substances were contained when they were accepted for transport, and subsequently until they were deposited at the Site, and all markings on such containers;
- o. The price paid for (i) transport or (ii) disposal or (iii) both, of each waste material and hazardous substance;
- p. All documents containing information responsive to a.-o. above, or in lieu of identification of all relevant documents, provide copies of all such documents;
- q. All persons with knowledge, information, or documents responsive to a.-o. above.

RESPONSE TO NO. 10:

SRL currently has no information which would demonstrate or tend to demonstrate that any material, hazardous or otherwise, from its facility was ever transported to or deposited at the Site. Similarly, SRL has no information as to any other person who may have arranged for treatment or disposal or for transportation for treatment or disposal.

SRL did issue blanket orders for trash pickup with Industrial Waste Disposal Co., Inc., P.O. Box 1453, Dayton, Ohio 45414, between 1973 and 1981 or 1982, and

with Koogler Suburban, 4000 Industrial Lane, Dayton, Ohio 45430, from 1982 to mid-1989. As stated above, SRL has no information that any materials from its facility were ever transferred or delivered to the Site. We have spoken with our former trash hauler, IWD, which informed us that the only possible connection between trash pickup and the Site would be a diversion contract between the Montgomery County incinerator, under the terms of which the incinerator could have diverted MSW to the Site if the incinerator were down or could not handle MSW on-site awaiting incineration.

Objections to Request Nos. 11-13. SRL is aware of the discretionary authority of U.S. EPA to seek the types of information described in 42 U.S.C. § 9604(e)(2(C). However, this authority is also subject to the general prohibition that administrative activity may not be arbitrary or capricious or constitute an abuse of discretion. Given the fact that SRL has not been identified as a PRP with regard to the Powell Road Site, this request is unduly burdensome and premature. Nevertheless, without waiving this objection, SRL makes the following responses to the Requests.

INFORMATION REQUEST NO. 11.: Identify all liability insurance policies held by Respondent from 1959 to the present. In identifying such policies, state the name and address of each insurer and of the insured, the amount of coverage under each policy, the commencement and expiration dates for each policy, whether or not the policy contains a "pollution exclusion" clause, and whether the policy covers or excludes sudden, nonsudden or both types of accidents. In lieu of providing this information, you may submit complete copies of all relevant insurance policies.

RESPONSE TO NO. 11: Attached hereto is a table listing all insurance policies held by the company from 1959 to the present. Those prior to 1987 were in the name of SRL. Those subsequent are under the umbrella of the policies held by the parent, Arvin Industries.

<u>INFORMATION REQUEST NO. 12.</u>: Provide copies of all income tax returns sent to the Federal Internal Revenue Service by Respondent in the last three years. If filed separately, provide copies of all income tax returns sent to the Federal Internal Revenue Service by facilities identified in response to 6., above, in the last three years.

RESPONSE TO NO. 12: Arvin Industries, the parent of SRL, has sufficient financial resources to satisfy any liability which may be incurred by it at the Powell Road Site. Enclosed herein is an Annual Report of Arvin Industries for 1992.

<u>INFORMATION REOUEST NO. 13.</u>: If Respondent is a Corporation, respond to the following requests:

- a. Provide a copy of the Articles of Incorporation and By-Laws of the Respondent.
- b. Provide Respondent's audited financial statements for the past five fiscal years, including, but not limited to, those filed with the Internal Revenue Service. If audited financial statements are not in existence, provide unaudited financial statements.
- c. Identify all of Respondent's current assets and liabilities and the persons who currently own or are responsible for such assets and liabilities.
- d. Identify the parent corporation and all subsidiaries.

RESPONSE TO NO. 13: SRL is one of four operating divisions of Calspan Corporation which in turn is part of Arvin Industries, Inc. See response to Request No. 12.

<u>INFORMATION REQUEST NO. 14.</u>: If Respondent is a Partnership, provide copies of the Partnership Agreement.

RESPONSE TO NO. 14: N/A

<u>INFORMATION REOUEST NO. 15.</u>: If Respondent is a Trust, provide all relevant agreements and documents related to support this claim.

RESPONSE TO NO. 15: N/A

INFORMATION REQUEST NO. 16.: If Respondent is a business association or joint venture or other similar business organization, provide all relevant agreements and documents to support this claim.

RESPONSE TO NO. 16: N/A

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<u>INFORMATION REQUEST NO. 17.</u>: Identify, including telephone number, any person designated to receive all future correspondence from U.S. EPA regarding the Site.

RESPONSE TO NO. 17:

Laurence A. McHugh, Esq. BARNES & THORNBURG 600 1st Source Bank Center 100 North Michigan Street South Bend, Indiana 46601 Telephone: 219/233-1171 FAX: 219/237-1125

Respectfully submitted,

SYSTEMS RESEARCH LABORATORIES, INC.

By: Xaurence A. McHugh as to al Objections

By: Library O. Dru

VERIFICATION

The undersigned verifies that he ha read the foregoing Responses to Requests for Information Pursuant to 42 U.S.C. § 9604(e), and that the facts set forth herein are true to the best of his knowledge and belief.

Wayne A. Crist

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STATE OF OHIO)	ec.
COUNTY OF MONTGOMERY) GREENE	SS:
Subscribed and sworn to before n	ne, a Notary Public in and for said county and state,
this sixth day of July, 1993.	

The state of the s

Notary Public

My Commission Expires:

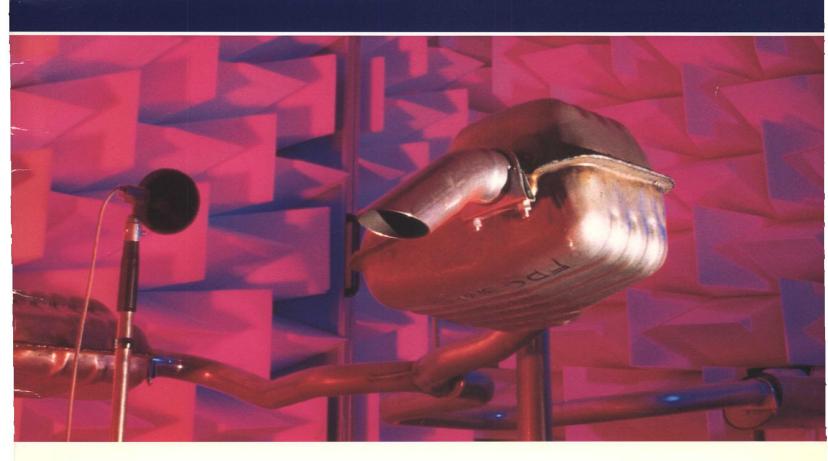
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MARGARET H. HEDGES, Notary Public In and For the State of Objo My Commission Expires April 3, 1998

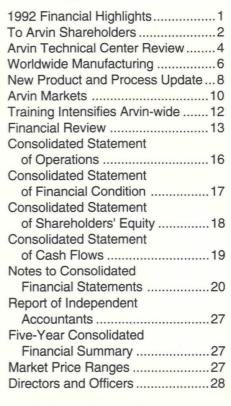
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CREATING OPPORTUNITIES THROUGH TECHNOLOGY AND TRAINING



Contents



Shareholder Information

Annual Meeting:

The annual meeting of Arvin shareholders will be held at 10:30 A.M. (E.S.T.) on Thursday, April 8, 1993, at the Holiday Inn Conference Center, 2480 Jonathan Moore Pike, Columbus, Indiana.

Stock Listings:

The common shares of the Company are listed on the New York and Midwest Stock Exchanges. Common stock symbol: ARV. Harris Trust and Savings Bank, 111 West Monroe, P.O. Box 755, Chicago, Illinois 60690 is Transfer Agent and Registrar for these listed securities.

Form 10-K:

A copy of Arvin's Form 10-K, as filed with the Securities and Exchange Commission, is available to shareholders upon written request.

Company Headquarters:
Arvin Industries, Inc.
One Noblitt Plaza, Box 3000
Columbus, Indiana 47202-3000

Investor Relations Contact: John W. Brown Telephone 812-379-3000



Arvin manufactures in 17 countries and supplies products and services in over 100 countries, primarily focused on auto parts for global markets.

Core products are automotive exhaust systems and ride control products for original equipment and replacement markets.

Arvin also fabricates metal parts and film-metal laminate for other manufacturers; coil coats metals; and produces tire valves, pressure gauges and related products. In addition, Arvin specializes in contract research, development, testing and evaluation for government and private industry.



About the cover:

This scene at the Cheswick research and development center in Wharton, U.K., shows an exhaust system in an anechoic measuring chamber undergoing noise characterization tests while coupled to a dynamometer mounted in an adjacent cell.



Arvin Industries, Inc. is an equal opportunity employer.

Financial Highlights

(Dollars in thousands except per share amounts)

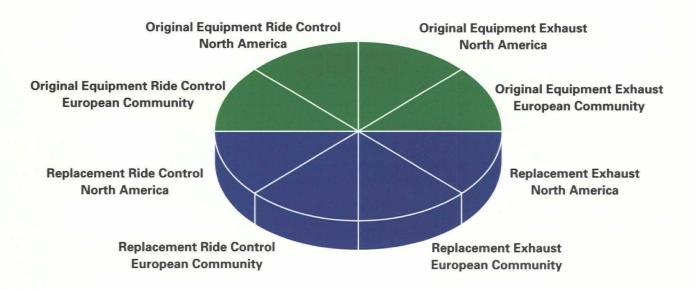
	1992		1991¹	Change
For The Year				
Net sales\$	1,890,184	\$ 1	,676,365	13%
Earnings from continuing operations	39,896		21,632	84%
As a % of average shareholders' equity	10.3%		5.8%	_
Earnings per common share from continuing operations\$	1.70	\$	0.73	133%
Cash dividends per common share	0.70		0.68	3%
Depreciation and amortization	68,942		63,755	8%
Capital additions	101,222		74,563	36%
At Year End				
Working capital\$	184,095	\$	198,444	(7)%
Shareholders' equity	398,427		374,064	7%
Book value per common share\$	18.45	\$	19.59	(6)%
Common shares outstanding	21,598,341	18	3,943,105	14%
Number of employees	16,002		16,152	(1)%

¹Restated for SFAS 109.

Arvin Automotive Markets

(Chart illustrates markets, not market size)

ORIGINAL EQUIPMENT



REPLACEMENT

To Arvin Shareholders

Arvin Industries, Inc. performed well in 1992 in the face of tight market conditions.

- The company set new records for sales:
- Profits grew, return on sales and return on equity increased;
- Our balance sheet was strengthened and cash flow enhanced;
- Sales of automotive products surpassed \$1.5 billion for the first time;
- Your Board of Directors voted to increase the quarterly dividend by 12 percent to 19 cents per share.

Arvin sales of original equipment auto parts increased to record levels in 1992. In the U.S., sales of exhaust and ride control products rose because of an increase in production, increased penetration of new model applications, changes in the product mix and new business.

Ride control product sales continue to grow through new business and further market penetration. In Europe, despite soft automobile sales, exhaust catalytic converter sales increased resulting from the mandated emission control requirements for new cars.

The Japanese car companies continue to increase their purchases of Arvin components for their North American and European assembly plants. We welcome the opportunity to grow with them.



Business Opportunities

We took several important steps toward fulfilling our global strategy in 1992. Our objective of establishing automotive operations in the major assembly capitals of the world was enhanced by the formation of Schmitz & Brill GmbH. The entity's two shareholders, Schmitz & Brill and Arvin, are participating on a 50/50 basis.

Schmitz & Brill, a respected German automotive exhaust systems parts manufacturer, and Cheswick look forward to expanding the capabilities this new company can offer vehicle manufacturers. The new company will continue to direct its attention to the excellent service and quality that customers such as Ford, BMW, Volkswagen-Audi and Mercedes have come to expect and value.

Arvin also announced that a Letter of Intent was signed to combine Arvin's Calspan Corporation with Space Industries International, Inc. The new company will be a leading supplier of space-related technology, hardware and services to a broad market of users, including governments, industry, research institutions and universities.

This is an exciting opportunity for Arvin and for the employees of Calspan to participate more fully in the commercial space sector—a market that grew by 29 percent in 1991 according to the U.S. Department of Commerce. Consummation of the transaction is subject to regulatory approvals and the approval of the boards of Arvin and Space Industries, as well as the shareholders of Space Industries.

Arvin created a new data center in the third quarter. This operation will principally serve North American Automotive, Gabriel Ride Control Products, Maremont Exhaust Products and Arvin headquarters.

Operations

Arvin has managed to attain a strong strategic position in the two largest automotive markets in the world, North America and Europe. Additional market opportunities exist even though vehicle production and registrations are currently experiencing low growth rates.

Safety, fuel economy, emission regulations, product durability, and vehicle performance are positive forces in increasing the complexity and value of our automotive products in the future.

Exhaust systems are experiencing a technology evolution in design and cost. An exhaust system designed in the 1970s consisted of a basic assembly with a muffler and exhaust pipe. Today, exhaust systems include flex pipes to isolate the exhaust system from engine vibration, increased use of stainless steel to provide longer life, and multiple silencing units or resonators to create even quieter cars.

As the world's leading independent producer of exhaust systems and catalytic converters, Arvin will continue to benefit from the new air quality standards in the European Community for all vehicles. An initial market of approximately six million units in 1993, growing to an estimated 8-9 million units in 1995, will be available to suppliers. Arvin intends to capture approximately 25 percent of this market, and currently has two catalytic converter plants in Europe.

Further U.S. restrictions in motor vehicle emission levels have been adopted by California. States can adopt the California standard or maintain the federal EPA standard. Cars built before 1983 account for 54 percent of all the cars on the road but emit more than 80 percent of smog-producing exhaust. As emission standards continue to

tighten across the U.S., Arvin expects to benefit as a supplier of exhaust systems and emission control products.

Ride control systems have a similar evolution. New systems will fundamentally alter how our vehicles react to varying road and driving conditions.

With the widespread demand for front-wheel drive, twin tube shock absorbers on the front were replaced with MacPherson struts at two to three times the cost of the twin tube shock absorbers.

The next generation of shocks will be further enhanced to respond to an increasing number of stimuli, such as vehicle speed, two or four wheel drive transmission settings, steering wheel angle and braking position. These vastly improved "smart shock" systems are expected to sell for as much as \$60 per wheel.

New Products

Arvin's electronic muffler system (EMS), which has passed the first phase of EPA drive-by tests, moves closer to the market place. Tests at Arvin's North American Automotive Technical Center, and on its two-mile test track, continue to be encouraging. Although challenges in technology, compactness and longterm reliability remain, we expect cars outfitted with EMS to appear in the late 1990s.

Arvin's development of the "on dash" read-out of tire pressure continues with increased interest coming from both U.S. and European auto manufacturers. Tire pressure monitoring is considered a requirement for the new "run flat" tires.

Balance sheet

Arvin took two significant steps in 1992 to strengthen its balance sheet and enhance cash flow. The Company sold two million new common shares to the public in September. The net proceeds of the

sale were applied mainly to debt reduction. Also in September, we exchanged \$103 million of convertible preferred stock into convertible subordinated debentures. Although this exchange did not raise new funds, it lowers our after-tax cost of capital.

By year-end, our capital structure had improved to levels more consistent with our long-term goals.

Increased Dividend

The Arvin Board of Directors increased the fourth guarter 1992 dividend 12 percent to 19 cents per common share compared to the previous quarterly dividend of 17 cents per common share. The increase reflects our confidence for 1993. This marked the 68th consecutive year in which cash dividends have been paid.

Leadership Changes

Arvin's Board of Directors unanimously expressed its appreciation to Douglas G. Fleming for his leadership and dedication upon the completion of 11 years of service as a member of the Board. It was also announced that Ronald R. Snyder has joined the Company as Vice President, General Counsel and Secretary.

Outlook

Turning inside, employee involvement, total quality management and extensive training programs in six languages are keys to improving the value of Arvin products. Quality is the driving force for customer satisfaction, ongoing improvement, lower cost and higher market share. The future is designed for the quality-oriented company working on endless

improvement, and adding value to products and services that enrich the lives of the world's inhabitants.

Our emphasis on technology and training is moving our products toward our goal of total quality at an increasing rate. We see mounting evidence that we are the cost and quality leaders in many of our markets. As a result, we have been rewarded with new business from existing customers and have been the choice of new customers as well.

As your management team turns to 1993, we are dedicated to significantly increasing our earnings per share over 1992 results. First quarter earnings are expected to exceed last year's first quarter by over 40 percent. Arvin is well prepared to serve the everchanging marketplace. As we become a larger global auto parts supplier, we find more and more opportunities to serve both our original equipment and replacement market customers.



James K. Baker

Chairman and CEO President and COO

Byron O. Pond

Arvin Technical Center Review

Advanced design and engineering have long attracted and sustained customers at Arvin. As automotive systems become more complex and new product lead time shortens, customers increasingly turn to suppliers for development and testing. Arvin has responded with steady investment in technology over the last three years, much of it in technical centers in Europe and in the U.S.

Following the 1992 completion of a \$13 million original equipment exhaust system technical center in the U.K., Arvin began an \$8 million expansion of the North American Automotive division technical center at Walesboro, Indiana. This project is scheduled for completion in 1994.

Among other features, the expansion in the U.S. provides three state-of-the-art acoustic test cells that allow Arvin engineers to design and acoustically tune new original equipment (OE) exhaust systems on stationary engines rather than on prototype vehicles. Space for another three cells is included in the new structure. The technical center expansion includes a modal analysis lab, dynamometer facilities, as well as expansion of prototype capacity—all in response to the needs of a growing number of customers.

The new U.K. research and development center at Wharton conducts advanced exhaust system testing for all European countries and provides engineering support to four other Cheswick development satellites in Holland, Spain, France and England.

Both the U.S. and the U.K. technical centers offer automotive test tracks that are computer equipped for advanced noise evaluation.

To enhance OE ride control technology, in 1992 Arvin completed a \$4 million technical center with test track and an anechoic chamber at A.P. Amortiguadores in Pamplona, Spain. This center also develops prototypes and performs advance testing on electronic suspension systems.

In the U.S., ride control research and development for shock absorbers, struts and advanced suspension systems is conducted at an enlarged technical center, now encompassing 22,000 square feet, located at Rochester Hills, Michigan. This facility is equipped to support the total U.S. customer base.

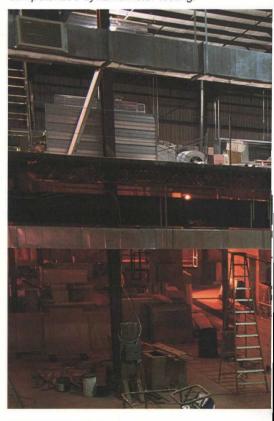
During 1992 Arvin's AVM division in Marion, South Carolina, doubled the size of its gas spring and climate control technical center to accommodate increased demand.

Fortunately, Arvin's commitment to quality and technology has been rewarded with significant new business from *existing* customers, as well as *new* customers. The annualized sales value of new OE applications in 1992 exceeded \$160 million. Moreover, Arvin was named the development source on over \$130 million in new projects, providing future growth opportunities.

Arvin's new technical centers are clearly focused on specific, rather than multiple, Arvin product lines. Equally important, they provide local customer support that is precisely measured to assure a high level of quality and responsiveness. These technical centers stand as antennas constantly attuning Arvin to the future.



At Cheswick's main research and development center in Wharton, U.K., vital engine statistics are monitored during computerized dynamometer testing.





At this development satellite in Roermond, Holland, acoustic analysis helps engineers achieve optimal outside and inside vehicle sound levels.

Shown under construction below are three new engine dynamometer test cells with adjacent hemi-anechoic chambers at North American Automotive's technical center in Walesboro, Indiana—the most advanced automotive exhaust systems research facility in North America.





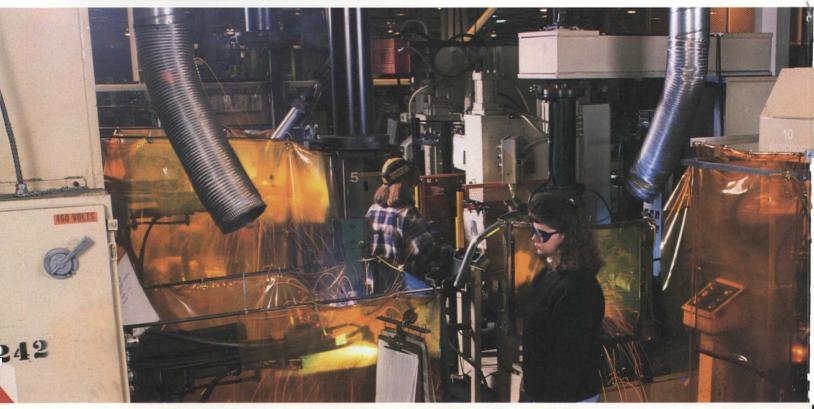
This new A.P. Amortiguadores technical center in Pamplona, Spain, provides advanced research and development for European OE ride control customers.



From Pamplona, Spain, this exhaust systems development satellite services the requirements of one of Europe's fastest growing car-producing countries.



In Pamplona, Spain, automotive struts exit this automated cataphoresis paint operation with a surface that can resist an 800-hour salt spray test—a quality specification important to car manufacturers.



This exhaust systems manufacturing line at Franklin, Indiana, offers a leading example of the new Arvin Total Quality Production System in action—a system designed for flexible, error-proof production, capable of fast response to customer needs.



Finnentrop, Germany, is the location of Schmitz & Brill GmbH, a new Arvin venture formed in May, 1992. Schmitz & Brill supplies a variety of tubular exhaust products to leading German automakers.

Worldwide Manufacturing

In the manufacture of automotive exhaust systems and ride control products, a sea change is sweeping across Arvin resulting in the implementation of a new Arvin Total Quality Production System (ATQPS). Today quality is the driving force for customer satisfaction.

To provide the highest quality products and services, as measured by a worldwide standard, Arvin is focusing on five initiatives: employee education, new and improved processes, technology transfer, cycle management and total quality systems.

At facilities throughout Arvin, employees are implementing phases of this new system as part of their continuous improvement efforts. For example, employee work teams are creating and applying new techniques to improve plant safety, machine reliability and process capability. They're intimately involved in errorproofing, manufacturing design processes and lead-time reduction, as well as in selecting and developing high quality suppliers. Further, they're analyzing operations and implementing continuing process improvements. Under this new Arvin production system, plants will operate with work teams organized into strategic business units, with each unit focused on a specific customer product line or activity. These crossfunctional units bring together engineering, maintenance, purchasing and production to act in concert, rather than as separate departments, concentrating all efforts on meeting daily or hourly customer requirements.

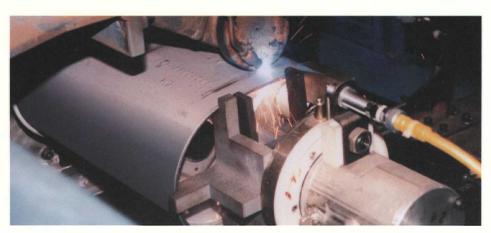
The Arvin Total Quality Production System uses 14 supporting strategies to achieve its goals:

- People-supportive practices
- Process capability
- Error-proofing
- Pull system
- · Quick set-up
- Planned maintenance
- Workplace organization and visual control
- · Plant, machine, office layout
- Transportation
- Containerization
- Supplier development & rationalization
- Small lot production
- Leveling
- · Lead-time reduction

The total system ties product design, sales, marketing, production and distribution into a cycle capable of rapid, accurate response to customer needs.



At the only plant of its type in Europe, this Bainbridge Silencers plant in Stoke-on-Trent, U.K., manufactures Timax® replacement exhaust systems on an integrated tubemaking and vector bending production line.

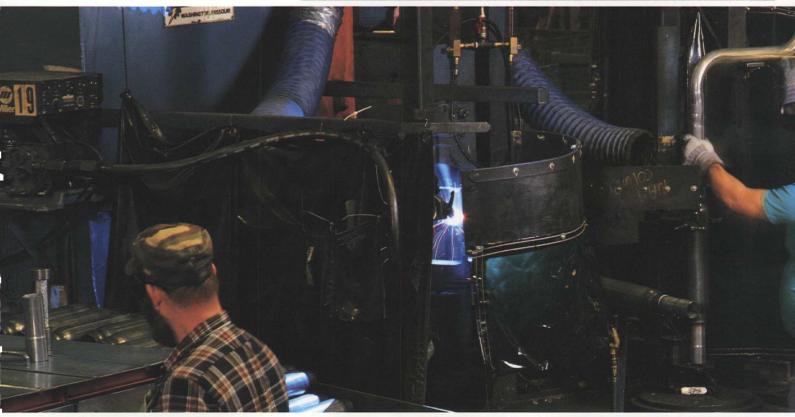


At the Dexter, Missouri plant, automated laser welding provides consistent precision and customer-pleasing flexibility in the production of modern exhaust systems.

New Product and Process Update

Arvin's electronic muffler system, now under development, is shown here on a test vehicle in front of the expanded U.S. technical center. The car is preparing to pass the EPA total vehicle noise test on Arvin's test track.





This production/process simulation line in the Gladstone exhaust systems plant in Columbus, Indiana, consists of new and standard equipment undergoing testing, development and operator training. On this line process improvements and innovations are tested and refined in advance, avoiding unanticipated production problems later.



At Marion, South Carolina, tests in AVM's environmental chamber, where temperatures range from -40° F to 180° F, confirm gas spring performance under a variety of environmental conditions.



Auto emissions burn cleaner upon startup and catalytic converters work better when Arvin's innovative air gap pipe (a pipe within a pipe) is part of the system. The insulated pipe delivers hotter exhaust gas to the catalyst, causing it to go to work sooner.

Quality, innovation and technology form the keystone of Arvin's strategy for global leadership in auto parts manufacturing. Their application leads to continuous improvement in Arvin products and processes.

In 1992 Arvin's capital spending increased by over 35 percent. Much of this new capital is directed to manufacturing process improvements that enhance quality and stimulate invention.

For example, customer quality requirements have led Arvin manufacturing plants to design an error proof production process that will not allow parts to move to the next station unless they are defect free.

Other examples: new cellular production techniques adopted at AVM, Arvin's gas spring and vacuum actuator facility, not only are more responsive to customer needs, they are yielding significantly more production while using less space.

Injecting new creativity into older processes has led to important gains in quality, too. An Arvin shock absorber plant recently rebuilt an old single-product shock absorber line into an integrated mini-factory for light truck replacement shock absorbers, raising productivity 17 percent and improving quality 20 percent.

It's not unusual to find examples of the industry's best technology at work within Arvin. But, in a global age of

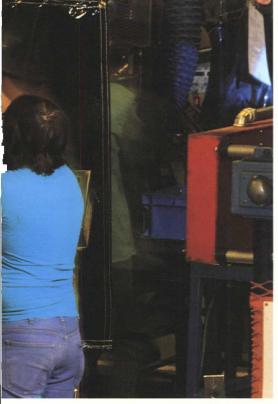
continuous change, keeping all operating units informed of the best practices presents a challenge.

Whether it's laser welding of laminated tubes and mufflers, designing electronic ride control systems or developing exhaust systems from engine sound tapes—all have multiple applications throughout Arvin. Communicating technology improvements broadly moves Arvin quality and productivity forward at a rapid pace.

To speed awareness and use of Arvin's best technology, Arvin launched a new communications link in 1992: the Arvin Management & Technology Review. In quarterly issues, innovative procedures and processes submitted by Arvin operations around the world are translated, distilled and distributed to all operations.

New products are the clearest evidence of the value of applied technology at Arvin. Examples include the catalytic converter for OE and replacement use, the electronic muffler, electronic ride control, air gap pipe, laser-welded tubing and mufflers, advanced gas springs and on-dash tire pressure communication.

As design, engineering, manufacturing and marketing become synchronous at Arvin, both cost and production time decline—while innovation and value increase. Arvin has only begun to tap the gains inherent in its new operating systems.





To meet heavy demand by other manufacturers for thermal diffusion (TD) processing of tooling and wear-related parts, a second TD Process* furnace was added at the Arvin TD Center in Columbus, Indiana, significantly increasing capacity and improving response time.

^{*}TD Process is a Japanese registered trademark of Toyota Central Research & Development Laboratories, Inc. Arvin has a license to the TD Process.

Opportunities for high growth—Arvin core products

World automotive markets for both OE and replacement parts are mature, and as such growth is low. However, sales for Arvin core automotive parts are expected to grow at double digit rates because the functionality of these products will be enhanced and expanded through the development of new technologies and emission regulations.

Exhaust systems are experiencing a technological evolution in design and cost. In the early 1970s an exhaust system consisted of a muffler and exhaust pipe. By the late 1970s a typical system was improved with stainless steel for longer life and in most U.S. applications catalytic converters were added to meet clean air standards. Exhaust systems will continue to become more complex as flex tubes are added to isolate the exhaust system from engine vibration; higher grades of stainless steel are used to provide longer life; and closecoupled catalytic converters are combined with resonators and multiple silencing units to provide quieter cars and to meet tougher noise and emission standards. Various

combinations of these new features will cause the selling price of exhaust systems to increase throughout the 1990s. Many systems for specific applications will double.

New ride control systems promise to fundamentally alter how vehicles react to varying road and driving conditions.

In the 1980s with the wide acceptance of front-wheel drive, twin-tube shock absorbers on the front wheels were replaced with MacPherson struts at two to three times the cost of basic twin tube shock absorbers.

"Smart shocks" continue to improve ride characteristics and safety by responding to stimuli, such as vehicle height, speed, four-wheel or two-wheel drive transmission, steering wheel angle and braking position. These vastly improved systems will drive the cost for an acceptable level of ride control to approximately \$60 per wheel.

You can depend on Arvin to continue to lead in the technological development of exhaust and electronic ride control systems necessary to meet the demands of the marketplace in the 1990s.



Among the ride control products that Arvin produces are the electronic shock absorbers shown above, specifically designed for retrofitting sport and utility vehicles to provide more control and comfort.

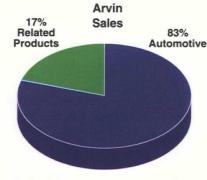


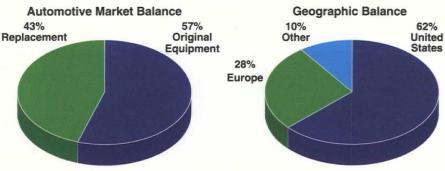






The Market Place





Arvin Markets





Modern vehicle performance requires complex exhaust systems often using a special resonator, flex tube, stainless steel manifold and dual mufflers along with a catalytic converter.

Automotive Original Equipment

Products include original equipment mufflers, exhaust pipes, catalytic converters, tubular manifolds, fuel filler tubes, small diameter tubing; tubeless tire valves; shock absorbers, struts and other ride control products; gas springs and vacuum actuators; decorative trim parts, film-metal laminates, fabricated diesel engine parts and assembled metal components; coil steel coated with zinc-rich primer for fabricating into auto body parts.

Automotive Original Equipment

(\$ in millions)	1992	1991	1990
Sales	\$886	\$745	\$720
Income	43	27	32

Automotive Replacement

Products include replacement mufflers, exhaust pipes, catalytic converters and exhaust system accessories; shock absorbers, struts and other ride control products;

gas springs and accessories; tire valves and accessories, tire pressure gauges, pneumatic connectors and dual tire visualizers.

Automotive Replacement

(\$ in millions)	1992	1991	1990
Sales	\$680	\$612	\$624
Income	66	52	55

Technology

Arvin technology offers research, development and testing services for government and the private sector.

(\$ in millions)	1992	1991	1990
Sales	\$211	\$214	\$233
Income	. 8	10	15

Industrial

Products include tank valves, furnace components, pneumatic connections, valve cores, bicycle tire valves; special application shock absorbers; film-

metal laminates; precoated coils of steel and aluminum for commercial and consumer end products.

Industrial

Technology

(\$ in millions)	1992	1991	1990
Sales	\$113	\$105	\$110
Income	10	6	11

Training Intensifies Arvin-wide

Recognizing that competitive success tomorrow depends on the skills and abilities of its employees, Arvin launched a new series of training and development courses in 1992 and laid ambitious plans for more to follow. The goal: to optimize customer satisfaction through continuous improvement in all operations worldwide.

Through practical workshop formats, the new courses provide training in process analysis, skill-building, managing change and related subjects useful to all Arvin operating units. These courses act as a conceptual framework that enhances the specific functional training that regularly occurs within each operating unit.

Currently, 20 new corporate courses include topics such as Customer Satisfaction, Benchmarking, Short Cycle Manufacturing, Design for Manufacturability, Workplace Organization and Team Oriented Problem Solving. In mid-1992, training began in a new Arvin Total Quality Production System that focuses on continually improving manufacturing processes within the divisions.

In the first 12 months over 5000 employees in the U.S. and Europe participated in the Customer Satisfaction workshop. Every month of the year sees Arvin employees from around the world involved in various training workshops.

Simultaneously, new courses are being developed. The 30 percent growth in corporate training courses offered during 1992 is expected to be repeated in 1993 and again in 1994.

A corporate training board of directors, composed of representatives from



In Toronto, Canada, this team of cross-functional members, involving engineering, production, data processing and plant administration, has just completed a four-day class in the new Arvin Total Quality Production System.

each Arvin division, develops and approves all courses. This board supervises:

- · Training, finance and budgeting;
- U.S. training, planning and logistics;
- European training, planning and logistics;
- Training effectiveness and measuring;
- Curriculum and course development.

At present, corporate training is offered in six languages, with courses ranging from $6^{1/2}$ hours to four days.

In an era of global competition and fast-paced technological advances, Arvin is building a culture that encourages innovation and continuous improvement through continuous learning.



An essential part of the Arvin Total Quality Production System consists of workshops where new concepts for improvement are presented and then applied to the local facility.



Teams of participants from the Arvin Total Quality Production System workshops examine plant operations and prepare recommendations for improvement based on the principles they've been learning.

Financial Review

Management's Discussion and Analysis of Results of Operations and Financial Condition

Acquisitions During 1992 the Company acquired a 50 percent interest in Schmitz & Brill GmbH, a German-based automotive parts manufacturer. In 1990 the Company acquired Cheswick France, an engine manifold and exhaust tube business, and a 40 percent interest in a new Australian joint venture, Arvin-Tubemakers Pty Ltd., a manufacturer of original equipment exhaust systems. The 1992 and 1990 acquisitions are not material to the consolidated operations of the Company; however, they are consistent with the Company's strategy of increasing its presence in the worldwide automotive parts market.

Discontinued Operations In 1991 the Company completed the sale of its ArvinAir subsidiary. The impact of the ArvinAir divestiture was not material to the Company's consolidated financial results.

Results of Operations 1992 sales of \$1.9 billion represent a new record for the Company, exceeding 1991 and 1990 sales of \$1.7 billion by approximately 13 percent.

Net Sales by Business Segment

(Dollars in Millions)

	199	92	19	91	19	90
Automotive				· ,		5 3
Original						
Equipment	.\$ 886	47%	\$ 745	44%	\$ 720	43%
Automotive						
Replacement	. 680	36	612		624	37
Technology	. 211	11	214	13	233	14
Industrial	. 113	6	105	6	110	6
Total	.\$1,890	100%	\$1,676	100%	\$1,687	100%

Automotive Original Equipment Sales 1992 vs 1991
Original Equipment ("OE") segment sales increased 19
percent in 1992 over 1991. The increase in sales was
attributable to increased exhaust and ride control volume,
which was in part due to the 9 percent increase in North
American light vehicle production; new exhaust business in
both North America and Europe, and continued growth in
catalyst sales in Europe.

1991 vs. 1990 OE segment sales increased 3 percent in 1991 over 1990, despite a 4 percent decline in worldwide automobile production during the year. Ride control product volume in Europe declined during 1991, and there was some negative effect on reported sales as a result of exchange rate movement. New exhaust business in North America, and expanded catalyst sales in Europe, resulted in the overall increase in sales.

Automotive Replacement Segment Sales 1992 vs 1991
Automotive Replacement ("Replacement") segment sales increased 11 percent in 1992 over 1991. This increase was principally the result of new ride control business and increased exhaust product demand in both North America and Europe.

1991 vs. 1990 Replacement segment sales decreased 2 percent in 1991. The decrease was primarily the result of the disposition of two small business units during the second half of 1990. Excluding the impact of these dispositions, replacement segment sales would have reflected an increase in 1991 sales of \$10 million or 2 percent. This increase was principally the result of increased aftermarket exhaust volume in the United Kingdom, favorable product mix for replacement exhaust and ride control products in North America, and higher volumes of aftermarket ride control products worldwide.

Technology Segment Sales 1992 vs. 1991 Technology segment sales decreased 1 percent in 1992 when compared to 1991. The modest decrease was primarily the result of a decline in available government contracts and the completion of several significant contracts during the year. Decreases were partially offset by increased revenues which were the result of stronger demand for technical and testing support.

1991 vs. 1990 Technology segment sales decreased 8 percent in 1991 due to reductions in spending in government programs and delays in new contract awards.

Industrial Segment Sales 1992 vs. 1991 Industrial segment sales increased 7 percent in 1992 over 1991. Increased sales were primarily the result of new business in coated metal applications.

1991 vs. 1990 Industrial segment sales decreased 4 percent in 1991. This was primarily the result of decreased volume due to increased competitive pressures in coil coating operations, caused by expanded capacity and alternative process applications.

Income From Operations By Business Segment (Dollars in Millions)

	1992	1991	1990
Automotive			
Original			
Equipment	\$ 43 33%	\$27 28%	\$ 32 28%
Automotive			
Replacement	66 52	52 55	55 49
Technology	8 7	10-11	15 13
Industrial	10 - 8	6 6	11 10
Total	\$127 100%	\$95 100%	\$ <u>113</u> 100%

Automotive Original Equipment Segment Income 1992 vs. 1991 OE segment income from operations for 1992 improved by 58 percent over 1991. Income from unconsolidated affiliates represented 4 percent of the increase in 1992, however, the primary reasons for the increase in operating profit during the period were improved exhaust product volume in both North America and Europe; the favorable mix of exhaust products sold during the year, and improved operating efficiencies.

1991 vs. 1990 OE segment income for 1991 dropped 17 percent from 1990 levels. Of this decline in segment profitability, 36 percent was due principally to charges related to the elimination of underproductive capacity in European operations and 17 percent was the result of higher severance costs in North America. These

decreases were partially offset by improved efficiencies and expanded European catalyst sales.

Automotive Replacement Segment Income 1992 vs.
1991 Replacement segment income increased 27 percent in 1992 when compared to 1991 Income from unconsolidated affiliates represented 15 percent of the increase in 1992; however, increased profits were primarily the result of higher volumes of exhaust and ride control products, principally in North America. Increased volumes were attributable to both new customers and increased demand. Other factors favorably affecting operating profit in to reduce operating costs worldwide.

1991 vs. 1990 Replacement segment income decreased in 1991 by 6 percent when compared to 1990 levels. This segment was unfavorably affected by product liability litigation charges and the disposition of two small business units during the second half of 1990. Excluding the 1990 operating income related to the disposed business units, this segment would have reflected a decrease in replacement exhaust sales in the U.K. and reductions in overhead costs provided a partial offset to the decreases

Technology Segment Income 1992 vs. 1991
Technology segment income declined 19 percent during 1992. The decline in operating profit reflects the completion of several significant contracts during 1992 and the changing environment in securing government contracts, in which increased competition for fewer contracts has resulted in higher proposal costs and lower margins.

1991 vs. 1990. Technology segment income from operations declined 30 percent relative to 1990. The decrease is primarily volume-related and was the direct result of spending reductions in government programs, higher proposal and selling costs and delays in new contract awards.

Industrial Segment Income 1992 vs. 1991 Industrial segment income increased 82 percent in 1992 over 1991. Operating profits increased at a greater rate than did sales as a result of the effect of increased volume on fixed costs and improved operating efficiencies.

1991 vs. 1990 Industrial segment income from operations decreased 49 percent in 1991 relative to 1990. The decrease is the result of reduced volumes during 1991 combined with an environmental penalty imposed by the United States District Court against the Company's Roll Coater subsidiary.

Net Earnings in 1992 increased 75 percent and 27 percent, respectively, when compared to 1991 and 1990 prior to the cumulative effect of changes in accounting principles. Increases were attributable to improved gross margin, lower interest costs and a decrease in the effective tax rate. After accounting changes, 1992 reflects a decrease when compared to 1991 and 1990.

The Company elected early adoption of three new accounting standards. Statements of Financial Accounting Standards (SFAS) 106 and 112 were adopted effective December 30, 1991. SFAS 109 was adopted retroactively.

by restating reported financial information for 1991 and 1990. These changes are reflected in the accompanying

SFAS 106 changed the Company's method of accounting for retiree health-care and life-insurance costs from a pay-as-you-go method to accruing these costs over the employee's working life. (see Note 8)

SFAS 112 changed the Company's method of accounting for postemployment benefits from a pay-as-you-rendered. (see Note 8)

SFAS 109 changed the Company's practice of accounting for deferred income taxes to the liability method. Under SFAS 109, deferred income taxes are provided for the temporary differences between the financial reporting basis and the tax basis of assets and liabilities.

In conjunction with the changes in accounting principles under SFAS 106, 1.12 and 109 the Company has recognized a deferred tax asset of \$19 million in the Statement of Financial Condition related to the deferred tax charges taken in accruing the liability for postretirement benefits. The ability to recognize a deferred tax asset under income. The Company considers the realization of the tax benefit to be likely and has therefore recognized it in accordance with SFAS 109 (see Note 4)

Interest Expense in 1992 decreased principally due to lower interest rates and a reduction in average debt outstanding during the year, despite the exchange of the convertible exchangeable preferred shares to convertible subordinated debentures in the third quarter. (see Note 11) cash flow from operations and proceeds from the sale of 2 million common shares during the third quarter.

Other expense, net increased \$6 million in 1992 over 1991. The primary reason for the increase was additional provisions for claims, litigation charges, and settlement costs related to various product liability cases and environmental matters which the Company is defending.

Financial Condition

Liquidity. During 1992 cash provided by operations was \$136 million, compared to \$97 million in 1991 and \$112 million in 1990. Cash provided by operating activities in 1992 improved, in part, due to continued reductions in worldwide inventories which dropped 21 percent during 1992 compared to 1991.

The current ratio decreased slightly at year-end 1992 to 1.6 from 1.7 at year-end 1991. The Company's total debt as a percentage of total capital increased to 50.8 percent at year-end 1992 from 44.1 percent at year-end 1991 primarily as a result of the exchange of preferred shares more fully described below. (see Note 1.1)

On September 29, 1992 the Company sold 2,000,000 newly issued common shares in the open market at a price of \$27.25 per share. The net proceeds of the sale were applied to debt reduction and used for working capital

On August 27, 1992 the Company announced that on September 30, 1992 it would exercise its option to exchange \$100 million of the outstanding \$3.75 convertible exchangeable preferred shares for 7.5 percent convertible subordinated debentures due in 2014. (see Note 11)

At year-end 1992 the Company had available aggregate short-term credit facilities of approximately \$287 million comprised of unsecured revolving credit agreements of \$100 million, and uncommitted credit facilities under money market rate arrangements totaling \$187 million. Borrowings under the above facilities totaled \$21 million at year-end.

The cumulative translation adjustment component of shareholders' equity was negatively effected in 1992 due to the strengthening of the U.S. dollar.

Long-term Assets Property, plant and equipment, net of depreciation, increased slightly in 1992. Capital expenditures totaled \$101 million in 1992, \$75 million in 1991 and \$79 million in 1990. Expenditures related to ongoing production improvements, product enhancements,

manufacturing efficiencies as well as normal replacement. Planned capital expenditures for 1993 are adequate for normal replacement and consistent with projections for future sales and earnings. Near-term expenditures are expected to be funded from internally generated funds.

Legal/Environmental Matters The Company is defending various environmental claims and legal actions that arise in the normal course of business, including matters in which the Company has been designated a potentially responsible party at certain waste disposal sites or has been notified that it may be a potentially responsible party at other sites as to which no proceedings have been initiated. Neither the amount of cleanup costs nor the allocation among potentially responsible parties has been determined at the majority of these sites. While it is not feasible to determine the outcome of these matters, in the opinion of management any liability will not have a material effect on the Company's financial position beyond provisions already recorded.

Quarterly Financial Data (Unaudited):

(Dollars in thousands except per share amounts)

Summarized quarterly financial data for 1992 and 1991 are as follows: (the first three quarters of 1992 have been restated for

SFAS 106, 109 and 112. All four quarters of 1991 have been restated for SFAS 109).

		1st Quarter			2nd Quarter			3rd Quarter			4th Quarter	
	As Previously Reported	Effect of Accounting Changes	As Restated									
Net sales:	\$459,374		\$459,374	\$500,215		\$500,215	\$475,510		\$475,510	\$455,085		\$455,085
1992	383,731		383,731	449,825		449,825	419,176		419,176	423,633		423,633
Gross profit:												
1992	78,043	\$(529)	77,514	97,956	\$(530)	97,426	88,960	\$(541)	88,419	79,222		79,222
1991	64,794	(294)	64,500	82,593	(294)	82,299	78,278	(294)	77,984	75,484	\$(294)	75,190
Earnings:												
Continuing operations:												
1992	4,181	(542)	3,639	15,450	(572)	14,878	\$12,267	(284)	11,983	9,396		9,396
1991	(1,151)	(79)	(1,230)	7,689	(79)	7,610	8,061	(80)	7,981	7,408	(137)	7,271
Net:												
1992	4,181	(34,056)	(29,875)	15,450	(572)	14,878	12,267	(284)	11,983	9,396		9,396
1991	56	(79)	(23)	7,689	(79)	7,610	8,061	(80)	7,981	7,408	(137)	7,271
Earnings per common share:1												
1992-Primary 1992-Fully	0.12	(0.03)	0.09	0.70	(0.03)	0.67	\$0.52	(0.01)	0.51	0.43		0.43
diluted	0.12	(0.03)	0.09	0.67	(0.03)	0.64	0.52	(0.01)	0.51	0.41		0.41
1991-Primary	(0.16)	0.00	(0.16)	0.30	0.00	0.30	0.32	0.00	0.32	0.29	(0.01)	0.28
Net:2												
1992-Primary 1992-Fully	0.12	(1.77)	(1.65)	0.70	(0.03)	0.67	0.52	(0.01)	0.51	0.43		0.43
diluted	0.12	(1.77)	(1.65)	0.67	(0.03)	0.64	0.52	(0.01)	0.51	0.41		0.41
1991-Primary	(0.10)	0.00	(0.10)	0.30	0.00	0.30	0.32	0.00	0.32	0.29	(0.01)	0.28

¹From continuing operations.

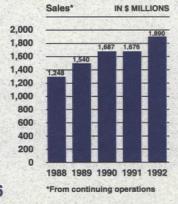
²The quarterly earnings per share amounts have been computed on the basis of the weighted average number of shares outstanding during the quarter. The sum of the quarterly earnings per share information presented above differs from the annual earnings per share amount primarily as a result of the effect on the weighted average of the sale of 2 million common shares during the third quarter of 1992.

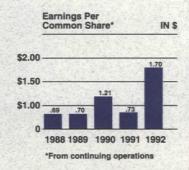
Consolidated Statement of Operations (Dollars in thousands except per share amounts)

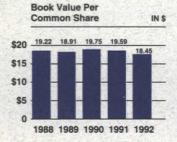
(Dollars in thousands except per share amounts)			
	1992	19911	19901
NET SALES	\$1,890,184	\$1,676,365	\$1,687,068
COSTS AND EXPENSES:			
Cost of goods sold	1,547,603	1,376,392	1,378,164
Selling, operating general and administrative	216,509	204,450	198,571
Corporate general and administrative	14,226	14,057	9,707
Interest expense	40,823	44,334	45,154
Interest income	(2,934)	(3,219)	(2,414)
Other expense, net	7,475	1,516	916
	1,823,702	1,637,530	1,630,098
EARNINGS FROM CONTINUING OPERATIONS			
BEFORE INCOME TAXES	66,482	38,835	56,970
INCOME TAXES	26,586	17,203	26,451
EARNINGS FROM CONTINUING OPERATIONS	39,896	21,632	30,519
Income from disposal of discontinued operations			
including income taxes of \$0, \$755 and \$689	<u> </u>	1,207	1,019
EARNINGS BEFORE EFFECT OF CHANGES			
IN ACCOUNTING PRINCIPLES	39,896	22,839	31,538
Effect of change in accounting for postretirement benefits			
other than pensions	(27,627)		* 14. / 12. **
Effect of change in accounting for postemployment			
benefits	(5,887)		<u> </u>
NET EARNINGS	\$ 6,382	\$ 22,839	\$ 31,538
Dividends on Preferred Shares	(5,822)	(7,762)	(7,762)
NET EARNINGS APPLICABLE TO COMMON SHARES	560	15,077	23,776
EARNINGS/(CHARGES) PER COMMON SHARE:			
From continuing operations	\$ 1.70	\$ 0.73	\$ 1.21
From discontinued operations		0.06	0.05
Effect of change in accounting for postretirement			
benefits other than pensions	(1.38)		
Effect of change in accounting for postemployment			
benefits	(0.29)		
Total	\$ 0.03	\$ 0.79	\$ 1.26
AVERAGE COMMON SHARES OUTSTANDING:			
Primary	20,054	19,094	18,822
¹Restated for SFAS 109.			
See notes to consolidated financial statements.			

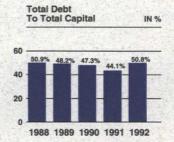
5-Year Key Statistics

(Amounts for 1991 and 1990 have been restated for SFAS 109)









Consolidated Statement of Financial Condition (Dollars in thousands)

	As of	As of
	1/3/93	12/29/911
ASSETS:		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 14,631	\$ 7,615
Receivables, net of allowances of \$4,151 in 1992		, , , , , , , , , , , , , , , , , , ,
and \$6 935 in 1991	282,678	271,910
Inventories (at the lower of cost or market)	128,279	161,835
Other current assets	42,963	32,837
Total current assets	468,551	474,197
NON-CURRENT ASSETS:		
Property, plant and equipment (at cost):		
and	20,930	22,587
Buildings and leasehold improvements	156,432	155,103
Machinery and equipment Construction in progress	571,058	531,268
Construction in progress	47,598	26,762
	796,018	735,720
Less: Allowance for depreciation	388,064	342,361
	407,954	393,359
Excess of cost over acquired net assets—net of amortization		
of \$21,545 in 1992 and \$16,383 in 1991	183,567	188,977
Other assets	92,374	73,886
Total non-current assets	683,895	656,222
LIABILITIES AND SHAREHOLDERS' EQUITY:	\$1,152,446	\$1,130,419
CURRENT LIABILITIES:		
Short-term debt	\$ 20,837	\$ 38,773
Accounts payable	163,146	117,889
Accrued employee compensation costs	49,561	55,997
Accrued expenses	42,176	38,006
Income taxes payable	8,736	25,088
Total current liabilities	284,456	275,753
NON-CURRENT LIABILITIES:		
Accrued employee benefits	53,581	
Deferred income taxes and other	20,272	35,808
Long-term debt	390,183	334,983
Minority interest	5,527	9,356
Redeemable preferred shares (7.5% convertible		
exchangeable preferred issue; redemption value \$103,500;		
2,300,000 authorized, 0 and 2,070,000 issued and		400.455
outstanding in 1992 and 1991, respectively)		100,455
Total non-current liabilities	469,563	480,602
SHAREHOLDERS' EQUITY:		
Capital Stock:		
Preferred shares (no par value, authorized 6,678,058		
in 1992 and 1991; none issued and outstanding)		
Common shares (\$2.50 par value, authorized 50,000,000;	50 220	E0 070
issued 23,691,462 in 1992 and 21,148,646 in 1991) Capital in excess of par value	59,229 194,381	52,872 133,847
Retained earnings	203,648	219,941
Cumulative translation adjustment	(12,417)	14,358
Common shares in treasury (at cost)	(46,414)	(46,954)
Total shareholders' equity	398,427	374,064
용물을 내고 불빛을 위해 내가 되었는 것은 하고 있어요. 그렇게 하고 싶다.	\$1,152,446	\$1,130,419
1Restated for SFAS 109.	Ψ1,132, 110	Ψ <u>1,100,419</u>
See notes to consolidated financial statements.		

Consolidated Statement of Shareholders' Equity (Dollars in thousands)

	Year Ended					
	1/3/	33	12/29	/911	12/30/901	
	Shares	Amount	Shares	Amount	Shares	Amount
COMMON SHARES: Beginning Balance	21,148,646	\$ 52,872	21,020,541	\$ 52 552	21,008,094	\$ 52,521
Common share offering.	2,000,000	5,000	. E 1,020,071	Ψ 52,352	21,000,034	Ψ JE,JE1
Exercise of stock options	333,572	834	128,105	320	12,447	31
Conversion of preferred shares						
to common	209,244	<u>523</u>				
Ending Balance	23,691,462	\$ 59,229	21,148,646	\$ 52,872	21,020,541	\$ 52,552
CAPITAL IN EXCESS OF PAR VALUE:						
Beginning Balance		\$133,847		\$131,571		\$131,469
Common share offering		46,855				
Exercise of stock options		5,971		2,029		102
Conversion of preferred shares	こかしょうしょ とつり、エージスク	E 446				
to common Shares contributed to employee		5,442				
benefit plan		2,266		247		
Ending Balance		\$194,381		\$133,847		\$131,571
						,
RETAINED EARNINGS: Beginning Balance as reported:						\$219,325
Effect of change in accounting for						\$Z 13,3Z3
income taxes						(12,624)
Beginning Balance as restated		\$219,941		\$217,697		\$206,701
Net earnings		6,382		22,839		31,538
Preferred share redemption premium		(3,045)			한 된 송등등	
Cash dividends on:		i vie de la la La la				
Preferred shares-redeemable		(5,822)		(7,762)		(7,762)
Common shares—(\$.70 a share for						
1992, \$.68 a share for 1991						
and 1990)		<u>(13,808)</u>		(12,833)		<u>(12,780)</u>
Ending Balance		\$203,648		\$219,941		\$217,697
CUMULATIVE TRANSLATION ADJUSTMENT	S:					
Beginning Balance		\$ 14,358		\$ 19,373		\$ 1,936
Translation adjustments during the year		(26,775)		(5,015)		17,437
Ending Balance		\$ (12,417)		\$ 14,358		\$ 19,373
COMMON SHARES IN TREASURY:						
Beginning Balance	(2,205,541)	\$ (46,954)	(2,224,559)	\$ (46,999)	(2,224,559)	\$ (46,999)
Stock exchanged for stock options						
exercised	(41,098)	(1,166)	(12,781)	(318)		¹ 유명하 다 .
Shares contributed to employee						
benefit plan	153,518	1,706	31,799	363	<u> </u>	المنظر والمستسمين
Ending Balance	(2,093,121)	\$ (46,414)	(2,205,541)	\$ <u>(46,954)</u>	(2,224,559)	\$ <u>(46,999</u>)
1D-11-4-4 (-1 OFA O 400		ः । दिल्लाहरू द्वार ी	<u> पृथ्वेद्याच्य</u> ीत	(a) (a) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c		ड. कारकार ह ी

¹Restated for SFAS 109.

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows (Dollars in thousands)

(Dollars in triousands)	1992	19911	19901
OPERATING ACTIVITIES:			
Net earnings	\$ 6,382	\$ 22,839	\$ 31,538
Adjustments to reconcile net earnings to net cash			
provided by operating activities:			
Depreciation	62,696	57,536	55,428
Amortization of intangibles	6,246	6,219	6,451
Accrued employee benefits ² Deferred income taxes, long-term	53,581		
Deferred income taxes, long-term	(16,377)	(1,834)	4,274
at a Other	(16,307)	(5,239)	626
Changes in operating assets and liabilities net of			
effects from acquisitions and divestitures:	(4 A 70A)	(E.400)	1.000
Receivables Inventories and other current assets	(10,768)	(5,132) 27,911	1,692
inventories and other current assets	23,430		3,328 17,017
Payables and other accrued expenses	42,992	(4,545) (523)	(8,833)
Income taxes payable	(16,352)	(023)	(0,000)
NET CASH PROVIDED BY OPERATING	ine roo	07 000	dad cod
ACTIVITIES	135,523	97,232	111,521
INVESTING ACTIVITIES:			
Purchase of property, plant and equipment	(101,222)	(74,563)	(79,173)
Proceeds from sale of property, plant and equipment	2,584	1,983	2,175
Acquisitions, net of cash acquired	(9,420)	40.004	(11,941)
Disposition of idle facilities		10,601 22,935	
Divestiture of ArvinAir Other	7,741	(4,836)	(6,192)
「食物は食べきを食むがあります」とは、これは、食物は、食物は、食物は、食物は、食物は、食物は、食物は、食物は、食物は、食物		(4,600)	(0,192)
NET CASH USED FOR INVESTING	(400.047)	/42 ADA\	(OF 121)
ACTIVITIES	(100,317)	(43,880)	<u>(95,131)</u>
FINANCING ACTIVITIES:			مخم خم
Change in short-term debt, net	(17,936)	(67,534)	10,484
Proceeds from long-term borrowings ³	3,754	94,135	84,720
Principal payments on long-term debt Purchase of treasury shares	(46,080)	(73,867)	(96,765)
Exercise of stock options	(1,166) 6,805	2,349	133
Proceeds from common shares issued, net of expenses	51,855	2,543	130
Dividends paid	(19,630)	(20,571)	(15,401)
Other	(3,266)	2,060	2,267
경영화 가는 사람들은 사용하다 가장 사람들의 가는 사람이 없는 것은 사람들이 되었다. 그는 사람들이 가장 살아 가장 없다.	(25,664)	(63,428)	، پن ېستست
NET CASH USED FOR FINANCING ACTIVITIES	(23,004)	(00,420)	(14,562)
CASH AND CASH EQUIVALENTS:		ang di sa di sakarangan di Sakarangan di sakarangan d	0.500
Effect of exchange rate changes on cash	(2,526)	447	2,533
Net increase/(decrease)	7,016	<u>(9,629)</u>	4,361
Beginning of the year	7,615	17,244	12,883
End of the year	\$ 14,631	\$ 7,615	\$ 17,244
INTEREST PAID	\$ 40,980	\$ 43,686	\$ 44,544
INCOME TAXES PAID	\$ 39,625	\$ 20,663	\$ 20,788
그 전 그렇게 하는 목숨 사람이 소문하게 되었다. 생산은 기원 등에 가는 사고 있다. 그 가장 때문			પ્રાત્રે ે `` `` '
LIABILITIES ASSUMED FROM ACQUISITIONS	\$	5	\$ <u>5,370</u>
The second of th			

¹Restated for SFAS 109.

²See Note 8.

See Note 11.

See Note 8.
 See Note 11.
 See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

(Amounts in tables in thousands unless noted otherwise)

Note 1 — Significant Accounting Policies:

Principles of Consolidation: The consolidated financial statements include the accounts of the parent company and all majority-owned subsidiaries. Affiliates that are 20% to 50% owned are included on the equity basis. Affiliates that are less than 20% owned are carried at cost.

Cash Equivalents: The Company considers all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

Inventories: Substantially all inventories located in the U.S. are stated under the last-in, first-out (LIFO) cost method. The remaining inventories are stated primarily on a first-in, first-out (FIFO) basis.

Property, Plant, and Equipment: Property, plant and equipment includes capital leases and significant additions or improvements extending asset lives. Maintenance and repair costs are expensed as incurred. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets for financial reporting purposes and accelerated methods for income tax purposes.

Excess of Cost Over Acquired Net Assets: The excess of cost over the fair market value of net assets acquired is amortized over a forty year period using the straight-line method.

Contract Revenue Recognition: Revenues on short and long-term service contracts for both government and industry are recorded on the percentage of completion method. Provisions for anticipated losses are made in the period in which they first become determinable. Unbilled receivables at year-end 1992 and 1991 were \$27 and \$40 million, respectively.

Foreign Currency: The functional currency for Arvin's consolidated subsidiaries, except for those operating in hyperinflationary economies, is generally the local currency of the country in which the subsidiary is located. To eliminate potentially distortive results within the consolidated statement of operations resulting from the remeasurement of financial statements of entities operating in hyperinflationary economies, the Company reclassifies gains and losses arising from the remeasurement process against the related operating statement line items. These reclassifications have no effect on net earnings.

Foreign exchange gains and losses included in the consolidated statement of operations for 1992, 1991 and 1990 were not material.

The Company occasionally uses forward exchange contracts and options to protect the U.S. dollar value of certain foreign currency positions and future foreign currency transactions. At January 3, 1993 the amount of options and forward exchange contracts outstanding was not material.

Pension Plans: Substantially all domestic employees of the Company are covered by non-contributory trusteed pension plans. Employees of the Company's United Kingdom operations are covered by contributory trusteed pension plans. Benefits are based on, in the case of certain plans, final average earnings and years of service and, in the case of other plans, a fixed amount for each year of service. Net periodic pension costs for 1992, 1991 and 1990 were determined using the Projected Unit Credit Cost Method. The Company's funding policy provides that annual contributions to the pension trusts will be at least equal to the minimum amounts required by ERISA in the United States and actuarial recommendations in the United Kingdom.

Income Taxes: Deferred income taxes are provided for the temporary differences between the financial reporting basis and the tax basis of assets and liabilities.

Earnings Per Share: Earnings per share are based on the weighted average number of common and common equivalent shares outstanding during the year. Dividends on the Company's convertible exchangeable preferred shares, which were issued in the third quarter of 1989, and exchanged in the third quarter of 1992, were deducted from net earnings prior to calculating earnings per share where appropriate.

Fiscal Year: The Company's fiscal year ends on the Sunday nearest to December 31. The 1992 fiscal year consists of 53 weeks.

Note 2 — Acquisitions and Discontinued Operations:

During 1989 the Company adopted a formal plan to dispose of its ArvinAir subsidiary. The sale of this business took place during January, 1991. The ArvinAir division was reported as a discontinued operation (in the Consolidated Statement of Operations) during 1991 and 1990.

During the second quarter of 1992, the Company acquired a 50 percent interest in Schmitz & Brill GmbH, a German-based automotive parts manufacturer. Schmitz & Brill is accounted for under the equity method. Although the acquisition is not significant to the Company as a whole, it is consistent with the Company's strategy of increasing its worldwide automotive parts market position.

Note 3 — Inventories:

The Company uses the dollar-value link chain method for calculating its LIFO inventories. Since in determining the overall index, the Company uses the method of pooling by individual inventory components, e.g., steel, substrate, labor and overhead, it is impractical to classify LIFO inventories into the finished goods, work in process and raw material components. The reduction in LIFO inventories increased pre-tax earnings in the amount of \$3 million in both 1992 and 1991, and was not material in 1990.

Approximately \$61 million and \$75 million of total inventories at year-end 1992 and 1991 were stated on the LIFO method. The excess replacement costs of these inventories over the stated LIFO value were approximately \$6 million and \$10 million, respectively.

Note 4 — Income Taxes:

The Company adopted Statement of Financial Accounting Standards 109 (SFAS 109), "Accounting for Income Taxes," by retroactively restating 1991 and 1990 reported results. The adoption of SFAS 109 changes the Company's method of accounting for income taxes from the deferred approach (APB 11) to an asset and liability approach. The asset and liability approach requires the recognition of deferred tax liabilities and assets for the expected future tax consequences of temporary differences between the financial reporting basis and tax basis of assets and liabilities. The change in accounting principle decreased retained earnings at January 1, 1990 by \$12.6 million.

The effect of adopting SFAS 109 on previously reported results for the years ended December 29, 1991 and December 30, 1990 was as follows:

	1991	1990
Decrease in earnings from continuing operations before		
income taxes	\$(1,176) 801	\$(1,103) (1,615)
Net decrease	\$ (375)	\$(2,718)
Loss per common share	\$ (0.02)	\$ (0.14)

Earnings from continuing operations before income taxes were as follows:

United States	\$31,001 35,481	\$13,177 25,658	\$30,671 26,299
	\$66,482	\$38,835	\$56,970
The provision for income tax	es was as	follows:	
	1992	1991	1990
Current tax expense:			
Federal	\$13,812	\$ 6,688	\$ 7,535
State	1,762	1,631	2,627
Foreign	13,543	9,725	10,481
Deferred tax expense:			
Federal	\$ (3,111)	\$ (784)	\$ 5,059
State	(156)	(166)	595
Foreign	736	109	154
Continuing operations provision	\$26,586	\$17,203	\$26,451
Discontinued operations			
provision	\$	\$ 755	\$ 689

An analysis of the effective income tax rate is as follows:

	Percent of Pretax Income		
	1992	1991	1990
Statutory rate	34.0%	34.0%	34.0%
State and local income taxes, net	1.5	2.3	4.1
Foreign tax rate difference Amortization of excess	3.3	2.9	3.0
purchase price	2.6	4.4	3.0
Other items, net	(1.4)	.7	2.3
Effective tax rate	40.0%	44.3%	46.4%

Deferred tax assets (liabilities) are comprised of the following at fiscal year-end:

1992	1991
\$ 18,765	\$ —
3,393	3,805
2,739	3,046
1,597	1,534
1,061	1,400
709	
8,235	8,358
(7,777)	(7,433)
28,722	10,710
(36,122)	(40,240)
(3,129)	(3,109)
	(595)
(39,251)	(43,944)
\$(10,529)	\$(33,234)
	\$ 18,765 3,393 2,739 1,597 1,061 709 8,235 (7,777) 28,722 (36,122) (3,129) — (39,251)

During 1992, no changes occurred in the conclusions regarding the need for a valuation allowance in any tax jurisdiction. Approximately \$5,904 and \$2,331 of deferred tax assets relating to net operating loss carryforwards and tax credit carryforwards, respectively, were available in various tax jurisdictions at January 3, 1993 expiring in the following years:

	NOLS	Tax Credits
1993	\$ 309	\$ 426
1994	394	1,268
1995	544	189
1996	1,302	3
1997	1,123	442
Unlimited	2,232	3
	\$5,904	\$2,331
	1	

At year-end 1992 consolidated retained earnings included undistributed earnings of non-U.S. subsidiaries amounting to approximately \$84 million. These earnings are indefinitely reinvested in non-U.S. operations or will be remitted substantially free of additional U.S. income taxes. Accordingly, no provision has been made for income taxes that may be payable upon remittance of such earnings.

Note 5 — Borrowings:

At fiscal year-end, long-term debt consisted of:

	1992	1991
Capital lease obligations		
(see Note 7)	\$ 2,858	\$ 4,543
95/s%-10% medium-term		
notes due 1996	15,000.	15,000
10% Euro-Notes due 1996	50,000	50,000
83/8% notes due 1997	74,857	74,829
9.8%-9.9% medium-term		
notes due 1998	45,000	45,000
10% medium-term notes		
due 2000	49,635	49,604
71/2% convertible subordinated		
debentures due 2014	97,526	
91/8% sinking fund		
debentures due 2017	46,567	74,697
Other	11,344	25,641
Current maturities	(2,604)	(4,331)
	\$390,183	\$334,983
	, ====	

Maturities of long-term debt for the years ending 1993 through 1997 are \$2,604, \$5,068, \$4,918, \$65,348, and \$75,022, respectively. The 9.125 percent sinking fund debentures require annual payments of \$4 million from 2005 to 2016.

The Company's outstanding 7.5 percent convertible subordinated debentures, due 2014, are convertible into Common Shares at a rate of 35.09 shares for each \$1000 debenture held.

In June 1991 the Company established an unsecured revolving credit facility totaling \$100 million, with a termination date of June 30, 1994, which provides for borrowings by the Company in the United States. In September, 1991 the Company established an unsecured multi-currency credit facility totaling \$75 million, with a termination date of September 30, 1994, which is available to the Company and its European subsidiaries. Both agreements were amended in December, 1992 to reduce each credit facility to \$50 million and to extend the termination date to June 30, 1995 and September 30, 1995. The credit agreements contain certain restrictive covenants, require commitment fees, and have interest rates based on various market rates. At January 3, 1993 there were no borrowings outstanding under the U.S. facility and \$3 million outstanding under the multi-currency facility. The Company is in full compliance with the restrictive covenants contained in the two revolving credit agreements.

In addition to the revolving credit facilities, the Company maintains short-term, uncommitted credit facilities totaling \$100 million in the U.S. and \$87 million available to its overseas subsidiaries under money market rate arrangements. At January 3, 1993 borrowings under these facilities totaled \$9 million and \$10 million, respectively.

The Company has entered into interest rate swap agreements to manage its interest rate exposure. At January 3, 1993, the Company had 3 outstanding interest rate swap agreements with commercial banks, having a total notional principal amount of \$63.2 million. These

agreements effectively change the Company's interest rate exposure on \$50 million of long-term debt from fixed rate to floating rate and on \$13.2 million of foreign short-term debt from local currency LIBOR to U.S. dollar LIBOR. The Company is exposed to credit loss in the event of nonperformance (which is not anticipated) by the other parties to the interest rate swap agreements.

Note 6 — Stock Options:

Two stock option plans for key employees have been authorized by the Company's shareholders. Options are granted at the fair market value on the date of grant and generally expire ten years later. At the beginning of fiscal years 1992, 1991 and 1990 a total of 1,794,337, 1,566,690 and 1,123,423 options were outstanding for each year. respectively, (weighted average price of \$22.20, \$20.91 and \$22.94), with 514,495, 23,670 and 487,600 shares being available for grant, respectively. On February 14. 1991 the Board of Directors adopted an amendment to the Company's 1988 Stock Benefit Plan, which was approved by the Shareholders during the April, 1991 annual meeting. increasing the number of Common Shares that may be made subject to awards under the Plan from 900,000 to 1,800,000. During fiscal years 1992, 1991, and 1990, 461,000, 438,450 and 463,930 options were granted. 333,572, 128,105 and 12,447 options were exercised (weighted average price of \$17.47, \$16.33 and \$10.67). and 24,743, 82,698 and 8,216 options expired. At January 3, 1993, December 29, 1991, and December 30, 1990 a total of 1,897,022, 1,794,337 and 1,566,690 options were outstanding (weighted average price of \$23:40, \$22.20 and \$20.91), and 67,345, 514,495 and 23,670 shares were available for grant, respectively.

Note 7 — Leases:

All non-cancellable leases with an initial term greater than one year have been classified as either capital or operating leases.

Future minimum payments under capital and operating leases and related subleases having non-cancellable terms of more than one year are as follows:

Or more trial one year are as follows:	Operation	Operating Leases	
Fiscal year: Leases	Rents	Subleases	
1993 \$ 1,259	\$12,464	\$ 2,411	
1994	10,898	2,304	
1995	9,814	2,308	
1996	8,401	2,277	
1997	6,674	2,142	
Later years 933	24,761	6,770	
Total minimum lease			
payments 3,713	\$73,012	\$18,212	
Less: Amount	·		
representing interest			
Present value of minimum			
lease payments 2,858	第75连的 金丁	-	
Included in short-term debt			
Included in long-term debt \$11,852			

Rent expense under operating leases was as follows:

	 1992	1991	1990
Annual rent	\$21,596	\$21,397	\$23,413
Less: sublease rent	 2,276	2,011	2,101
Net rent expense	\$19,320	\$19,386	\$21,312
	 · · ·	: 	

Capital lease assets have been included in property, plant and equipment as follows:

	1992	1991
Land	\$ 437	\$ 408
Buildings	6,755	5,689
Machinery and equipment	13,877	14,793
	21,069	20,890
Less: Accumulated		
depreciation	13,196	13,163
	\$ 7,873	\$ 7,727
	` 	

Note 8 — Other Postretirement and Postemployment Benefits:

A. Other Postretirement Benefits

The Company provides certain retiree health care benefits covering a majority of U. S. salaried employees. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of credited service. The plans are contributory based on years of service, with contributions adjusted annually. Plan design changes to limit future cost increases to the Company were made to the plans effective January 1, 1992. The Company does not pre-fund these benefits and has the right to modify or terminate certain of these plans in the future.

In the fourth quarter of 1992, the Company adopted the provisions of the Financial Accounting Standards Board's Statement 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions," changing to the accrual method of accounting for these benefits effective December 30, 1991. Prior to 1992, postretirement benefit expense was recognized when claims were paid. Previously reported interim period results for the current year were restated as a result of the adoption. A pre-tax charge of \$45 million (\$28 million after taxes or \$1.38 per share) was recorded as the cumulative effect of the accounting change at the beginning of the year. This change also resulted in 1992 pre-tax postretirement benefit expense of \$5 million which was \$3 million higher. (\$2 million after taxes or \$.11 per share) than the previous pay-as-you-go cost.

Prior to 1992, outlays for health care benefits to retirees were not totally separable from those for active employees. Domestic expenditures for these benefits during 1991 and 1990 totaled \$15 million and \$14 million for 3,601 and 4,106 active, and 765 and 723 retired employees, respectively. Expenditures by foreign subsidiaries for these benefits were not material.

The components of nonpension postretirement benefit expense in 1992 were as follows:

	1992
Service cost-benefits earned	
during the period	\$ 1,658
Interest cost on accumulated	
postretirement benefit obligation	3,631
Net periodic postretirement	100
benefit cost	\$ 5,289

The accumulated postretirement benefit obligation at January 3, 1993 in the accompanying balance sheet, is comprised of the following components:

	1992
Retirees	\$22,590
Fully eligible active plan	
participants	2,831
Other active plan participants	22,968
Total accumulated postretirement benefit obligation	48,389
Unrecognized net actuarial gains (losses)	
Accrued postretirement benefit obligation	\$48,389

Future benefit costs were estimated assuming medical costs would increase at a 15 percent annual growth rate for 1992 and 1993, decreasing to a 7 percent annual growth rate ratably over the next 8 years and then remaining at a 7 percent growth rate thereafter. A 1 percent increase in this annual trend rate would have increased the accumulated postretirement benefit obligation at January 3, 1993 by 15.2 percent. The effect of this change on the aggregate of service and interest cost for 1992 would be an increase of 17.7 percent. The weighted average discount rate used to estimate the accumulated postretirement benefit obligation was 8.25 percent.

Certain of the Company's non-U.S. subsidiaries provide limited non-pension benefits to retirees. Most retirees outside the United States are covered by government sponsored and administered programs, and the cost of these programs is not significant to the Company.

B. Other Postemployment Benefits

In the fourth quarter of 1992, the Company adopted the provisions of the Financial Accounting Standards Board's Statement 112, "Employers' Accounting for Postemployment Benefits" effective December 30, 1991. Postemployment benefits include disability benefits, supplemental unemployment benefits, workers' compensation benefits, and continuation of health care benefits and life insurance coverage. Prior to 1992, the Company previously accounted for certain types of these benefits on a pay-as-you-go basis. SFAS 112 requires the use of the accrual method of accounting for postemployment benefits. Expenses are recognized as employee service is rendered. The effect of adopting SFAS 112 in 1992 resulted in an \$8 million pre-tax charge, \$6 million after tax, or \$29 per share:

Note 9 — Contingencies:

The Company is a defendant in several lawsuits and participates in various EPA Super Fund sites. Management believes existing provisions are adequate and does not expect any potential loss or settlement to have an adverse material effect upon the Company's financial position.

Note 10 — Pension Plans:

Net pension expense in 1992, 1991, and 1990 is summarized as follows:

1992	1991	1990
\$ 9,181	\$ 8,668	\$ 9,377
17,536	16,219	14,970
(31,653)	(50,330)	1,511
(10,403)	(30,475)	20,397
(21,250)	(19,855)	(18,886)
(2,079)	(2,102)	(2,180)
\$ 3,388	\$ 2,930	\$ 3,281
	\$ 9,181 17,536 (31,653) (10,403) (21,250) (2,079)	\$ 9,181 \$ 8,668 17,536 16,219 (31,653) (50,330) (10,403) (30,475) (21,250) (19,855) (2,079) (2,102)

The funded status of the Company's pension plans at both year-end 1992 and 1991 is as follows:

	Total	Total			
Actuarial present value of projected benefit obligation:	1992	1991			
Vested—Pension Plans	\$(176,035) (17,291)	\$(155,410) (13,308)			
	(193,326)	(168,718)			
Nonvested—Pension Plans	(10,265)	(11,127)			
Accumulated benefit obligation Projected impact of future	(203,591)	(179,845)			
salary increases	(24,386)	(23,382)			
Projected benefit obligation	(227,977)	(203,227)			
Market value of plan assets available for benefits:					
Pension trusts	259,831	237,117			
Savings trust	17,292	13,392			
	277,123	250,509			
Funded Position	\$ 49,146	\$ 47,282			
Consisting of:					
Unamortized initial asset	\$ 16,703	\$ 18,446			
Prepaid expense	10,698	10,228			
Unrecognized gain on assets	29,756	25,787			
Unrecognized prior service cost	(8,011)	(7,179)			
	\$ 49,146	\$ 47,282			

The Company's domestic pension obligations were projected to, and the assets were valued as of the end of, 1992 and 1991. The assets, comprised almost entirely of high grade stocks and bonds, included 1.3 million shares of the Company's common stock at year-end 1992 and 1.4 million shares at year-end 1991.

Assumptions used in determining the projected benefit obligation for the domestic plans for 1992 and 1991, included a discount rate of 8.25 percent in 1992 and 8.5 percent in 1991, an expected return on plan assets of 9 percent for 1992 and 1991 and average salary increases of 5 percent for 1992 and 1991.

The Company's principal foreign-based defined benefit plans are in the United Kingdom (see Note 1). Actuarial estimates for these plans included net pension expense of \$1 million for both years, a projected benefit obligation of \$28 million and \$31 million and net plan assets of \$35 million and \$33 million in 1992 and 1991, respectively. The estimates for plan obligations and assets were projected to, and valued as of, the end of 1992 and 1991. Assumptions used in the determination of these estimates included a discount rate of 10 percent, a return on plan assets of 10 percent and average salary increases of 7.5 percent for both 1992 and 1991.

In the event of a change of control which is not approved by a majority of the Company's Continuing Directors, Arvin's domestic pension plan for salaried employees specifies that the excess of the market value of plan assets over the present value of accrued plan benefits will automatically accrue, under a prescribed formula, to the active plan participants. The present value of accrued plan benefits is determined by applying the actuarial assumptions used by the Pension Benefit Guarantee Corporation to value benefits of terminated pension plans.

Note 11 — Redeemable Preferred Shares:

In 1989 the Company issued \$103 million of convertible exchangeable preferred shares. The carrying value of \$100 million on the 1991 Consolidated Statement of Financial Condition reflected proceeds of \$103 million from the sale of convertible exchangeable preferred shares less related issuance costs in the amount of \$3 million.

All of the 2,070,000 convertible exchangeable preferred shares issued were outstanding at year-end 1991. The Company did not classify this issue as shareholders' equity since the holder had the option, in certain remote circumstances, to redeem such shares.

On September 30, 1992 the Company exercised its option to exchange \$100 million of outstanding \$3.75 convertible exchangeable preferred shares for 7.5 percent convertible subordinated debentures due 2014 in a non-cash financing transaction. As a result of the exercise, the Company issued 209,244 Arvin common shares to holders of exchangeable preferred shares exercising their right to convert such shares to common stock. All remaining convertible exchangeable shares were exchanged for \$98 million of 7.5 percent convertible subordinated debentures.

Note 12 — Shareholders' Equity:

Preferred Stock Purchase Rights: During 1986 the Company distributed one Preferred Share Purchase Right ("Right") to shareholders of record for each of the Company's common shares held. The Rights entitle qualifying shareholders to purchase one-hundredth of a share of the Company's Series C Junior Participating Preferred Shares, of which 250,000 shares are authorized. The exercise price is \$90 per share, subject to certain anti-dilution provisions. The Rights have no voting power.

The Rights are currently not exercisable, certificates representing the Rights have not been issued, and the Rights automatically trade with the Company's common shares. The Rights become exercisable in the event of an attempt by a person or group to acquire the Company on

terms not approved by the Company's Board of Directors. The Rights, if exercised, will result in substantial dilution. The Rights are redeemable by the Board of Directors for \$.10 per Right until a person or group acquires beneficial ownership of 20 percent or more of the Company's common shares, at which time they become non-redeemable. The Rights expire on June 13, 1996.

In February, 1989, the Company's Board approved an amendment to these purchase rights which entitles current shareholders to buy the Company's common shares at a reduced price should a third party acquire a 20 percent or more ownership.

Average common shares outstanding for 1992, 1991 and 1990 were 20,054, 19,094, and 18,822, respectively.

Note 13 — Business Segments:

The Company is engaged in the manufacture and sale of a broad range of products and services. Representative

products and services by major category are described on page 11 of this report.

	1992	19911	19901
Net sales:			
Automotive Original Equipment	\$ 885,763	\$ 744,819	\$ 719,638
Automotive Replacement	680,148	612,152	624,309
Technology	210,811	213,816	232,716
Industrial	113,462	105,578	110,405
Total net sales	\$1,890,184	\$1,676,365	\$1,687,068
Income from operations:			
Automotive Original Equipment	\$ 42,382	\$ 26,907	\$ 32,412
Automotive Replacement	66,348	52,161	55,387
Technology	8,376	10,329	14,735
Industrial	10,157	5,592	10,867
Total income from operations ²	127,263	94,989	113,401
Less:			
Expenses unrelated to segments	22,892	15,039	13,691
Net interest (income) and expense	37,889	41,115	42,740
Total earnings before income taxes ²	\$ 66,482	\$ 38,835	\$ 56,970
Identifiable assets:			
Automotive Original Equipment	\$ 542,454	\$ 516,758	\$ 499,557
Automotive Replacement	396,221	407,633	435,024
Technology	98,993	101,293	98,405
Industrial	54,378	56,979	102,719
Total identifiable assets	1,092,046	1,082,663	1,135,705
General corporate ³	60,400	47,756	52,553
Total assets	\$1,152,446	\$1,130,419	\$1,188,258
Depreciation and amortization:			
Automotive Original Equipment	\$ 37,708	\$ 33,398	\$ 29,627
Automotive Replacement	23,414	22,809	22,113
Technology	2,665	2,925	2,767
Industrial	4,637	4,109	6,881
General corporate	518	514	491
Total depreciation and amortization	\$ 68,942	\$ 63,755	\$ 61,879
Additions to property, plant and equipment:			
Automotive Original Equipment	\$ 61,766	\$ 43,687	\$ 48,632
Automotive Replacement	30,677	22,177	21,576
Technology	2,095	3,365	3,239
Industrial	6,548	5,156	5,459
General corporate	136	178	267
바다 그렇게 되었다. 하고 하는 아니는 아니는 아니는 아니는 아니는 아니는 아니는 아니는 아니는 아니	\$ 101,222	5. P. N. A	
Total capital additions	φ 101,222 	\$ 74,563	\$ 79,173
1Restated for SEAS 109			THE RESIDENCE OF THE PARTY OF T

¹Restated for SFAS 109.

²From continuing operations.

³Consists primarily of cash and cash equivalents, prepaid expenses, and non-current assets.

Sales exported out of the United States and sales between business segments (affiliated customers) were not

significant and are thus not separately reported. Information on the Company's geographic areas is as follows:

		1992	类别的 电压力	19911		19901
Net sales:			jas kuli ē		5,3:554 <u>7</u> 7	
United States		\$1,177,797	\$1	,064,032	\$1,0	94,810
Europe		520,112		446,923	. 4	24,432
Other foreign		192,275	ા વેશક કહે	165,410	1	67,826
Total net sales		\$1,890,184	\$1	,676,365	\$1,6	87,068
Income from operations:		· ——-	· · · · · · · · · · · · · · · · · · ·			
United States	••••	\$ 77,804	\$	50,510		67,678
TEurope		32,087		26,226		33,355
Other foreign		17,372		18,253	9	12,368
Total income from operations ²		\$ 127,263	\$	94,989	\$_1	13,401
dentifiable assets:						
United States		\$ 534,017	-\$	521,605	\$ 5	77,280
Europe		454,629		461,313	4	52,395
Other foreign		103,400		99,745	<u>.</u> 1	06,030
Total identifiable assets		\$1,092,046	· \$1	,082,663	\$1,1	35,705
Sales to one customer in 1992, and two customers in			4.7		in the second	
1991 and 1990 exceeded 10% of total net sales and are						
included in the business segments as follows:	1992		199	1	199	0
		Percent		Percent		Percent
Business		of		of		.óf
Segment	Amount	Sales	Amount	Sales	Amount	Sales
Automotive Original Equipment	\$325,678	17.2%	\$308,117	18.4%	\$320,010	19.0%
Technology	186,595	9.9	189,494	11.3	205,965	12.2
	\$512,273	27.1%	\$497,611	29.7%	\$525,975	31.2%
Restated for SFAS 109.		. " ==== "		· . 		v === , %

Note 14 — Concentrations of Credit Risk:

Financial instruments which potentially expose the Company to concentrations of credit risk consist primarily of trade accounts receivable.

The Company's customer base includes virtually every significant automotive manufacturer and a large number of well known jobbers, distributors, and installers of

automotive replacement parts in North America and Europe. The Company generally does not require collateral and the majority of its trade receivables are unsecured. Although the Company is directly affected by the financial well-being of the automotive industry, management does not believe significant credit risk exists at January 3, 1993.

Note 15 — Subsequent Events:

²From continuing operations

On January 8, 1993 the Company signed a merger agreement with Space Industries International, Inc. to combine the assets of the Company's Calspan and SRL subsidiaries with assets of Space Industries, Inc., in a non-

cash transaction. Participation is expected to be based on valuations of the contributed assets and operations. This transaction will be accounted for as a purchase and the Company's ownership share will approximate 70 percent.

Note 16 — Investments in Affiliates:

Included in Arvin's continuing operations at January 3, 1993 are equity interests of 50% or less in companies engaged in producing automotive exhaust and ride control products and providing technology services.

Summarized financial information of the affiliates is as follows:

Condensed Statement of Operations	1992	1991	1990
Net Sales	\$283,539	\$202,005	\$163,977
Gross Profit	51,302	33,674	29,453
Operating Earnings	31,168	21,692	20,425
Net Earnings	18,974	12,875	9,479
Equity in Net Earnings of Affiliated	,我保护院		
Companies	7,849	5,069	4,259
Condensed Statement of Financial Co	ndition		
Current assets	108,799	86,489	74,110
Non-current assets	111,048	53,982	47,436
	\$219,847	\$140,471	\$121,546
Current liabilities	\$ 85,478	\$ 40,840	\$ 37,379
Non-current liabilities	41,782	36,031	22,600
Shareholders' equity	92,587	63,600	61,567
	\$219,847	\$140,471	\$121,546

Report of Independent Accountants

To the Shareholders and Board of Directors Arvin Industries, Inc.

In our opinion, the accompanying consolidated statement of financial condition and the related consolidated statements of operations, of shareholders' equity and of cash flows present fairly, in all material respects, the financial position of Arvin Industries, Inc. and its subsidiaries at January 3, 1993 and December 29, 1991, and the results of their operations and their cash flows for each of the three years in the period ended January 3, 1993, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the

financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

As discussed in Notes 4 and 8 to the consolidated financial statements, in 1992 the Company adopted the provisions of Statement of Financial Accounting Standards (SFAS) 109 "Accounting for Income Taxes," the provisions of SFAS 106 "Employers' Accounting for Postretirement Benefits Other than Pensions," and the provisions of SFAS 112 "Employers' Accounting for Postemployment Benefits."

Indianapolis, Indiana February 2, 1993

Five-Year Consolidated Financial Summary

(Dollars in thousands except per share amounts)	1992	19911	1990¹	19893	19884
Operating Results:2					
Net sales	\$1,890,184	\$1,676,365	\$1,687,068	\$1,540,523	\$1,248,227
Interest expense	40,823	44,334	45,154	42,231	21,752
Earnings	39,896	21,632	30,519	19,667	16,320
Earnings per common share	1.70	0.73	1.21	0.70	0.69
Dividends declared:					
Preferred shares	5,822	7,762	7,762	6,460	3,426
Common shares	13,808	12,833	12,780	12,748	12,654
Per common share	0.70	0.68	0.68	0.68	0.68
Average number of common shares outstanding	20,054	19,094	18,822	18,866	18,771
Financial Position:					
Total assets	\$1,152,446	\$1,130,419	\$1,188,258	\$1,118,612	\$1,058,141
Long-term debt	390,183	334,983	317,736	332,055	344,759
Total debt	411,020	373,756	425,241	426,981	424,325
Redeemable preferred shares		100,455	100,455	100.455	
Shareholders' equity	398,427	374.064	374.194	358.252	408,535
Book value per common share **Bestated for SFAS 109	18.45	19.59	19.75	18.91	19.22

¹Restated for SFAS 109. ²From continuing operations.

Market Price Ranges and Quarterly Dividends Paid

	Co	Common Shares			ferred Shares			
		Market	Price		Market Price			
	Dividend	High	Low	Dividend	High	Low		
Fiscal 1992								
First Quarter	. \$.17	\$261/2	\$193/4	\$.933/4	\$531/2	\$467/8		
Second Quarter	17	273/8	235/8	.933/4	55 ³ / ₈	51		
Third Quarter	17	297/8	243/4	.933/4	561/2	50		
Fourth Quarter	19	321/4	223/8		A			
Fiscal 1991								
First Quarter	\$.17	\$235/8	\$161/4	\$.933/4	\$49	\$41		
Second Quarter	17	263/8	211/4	.933/4	531/4	471/4		
Third Quarter	17	25	20	.933/4	52	461/2		
Fourth Quarter	17	221/8	173/8	.933/4	501/4	441/2		

³Results of operations for the acquisition of Cheswick and Bainbridge were included beginning in January, 1989.

⁴In 1988 a restructuring charge of \$28.7 million (\$17.8 million after-tax) was recorded.

Directors and Officers

Board of Directors

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President and Chief Executive
Officer
Space Industries International,

James K. Baker Arvin Chairman and Chief Executive Officer

Dr. Steven C. Beering President Purdue University

Loren K. Evans Arvin Vice Chairman

Joseph P. Flannery Chairman, President and Chief Executive Officer Uniroyal Holdings, Inc

Robert E. Fowler, Jr. President Silvestri Corporation

Richard W. Hanselman Former Chairman and Chief Executive Officer. Genesco, Inc.

Thomas A. Holmes
Retired Chairman of the Board
of Directors
Ingersoll-Rand Company

V. William Hunt

Arvin Executive Vice President

Don J. Kacek Chairman, President and Chief Executive Officer
S & J Automation; Inc.

Frederick R. Meyer Chairman and President Aladdin Industries, Inc.

Byron O. Pond Arvin President and Chief Operating Officer

Richard M. Ringoen Retired Chairman and Chief Executive Officer Ball Corporation

Richard A. Smith

Arvin Vice President-Finance
and Chief Financial Officer

Corporate Officers

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Loren K. Evans*

Byron O. Pond* President and Chief Operating Officer

Raymond P. Mack Vice President-Human Resources

Y. Kodama Managing Director, Arvin Japan Branch

V. William Hunt Executive Vice President

W. Frederick Meyer* Vice President-Public Affairs

John W. Brown
Vice President-Public
Relations

J. William Kendall.
Vice President-Community
Relations

Richard A. Smith* Vice President-Finance and Chief Financial Officer

Rex L. Emshwiller Controller and Chief Accounting Officer

William M. Lowe Director of Taxation & Chief Tax Officer

A. R. Sales Treasurer

Gary J. Admire
Assistant Treasurer

Ronald R. Snyder*
Vice President, General Counsel
and Secretary

Page E. Gifford Assistant Secretary

Tim A. Grogg Assistant Secretary

David M. Main
Assistant Secretary

Operating Officers

Joe T. Atkins \(\rightarrow\)
President, North American
Automotive

Larry D. Blair. Vice President-Finance

Mervin Dunn Vice President-Total Quality

Richard L. Hendricks Vice President-Human Resources Michael J. Leslie Vice President-Fluid and Structural Systems

David N. Lewis
Vice President-Materials
Management

Donald L. Scheidt Vice President-Marketing and Sales

Charles D. Shepherd Vice President-Engineering

Larry I. Van Epps Vice President-Manufacturing and International

Jose L. Berraondo ◊
Director General
AP Amortiguadores

Mario Aranaz Director-Marketing

Pedro Armendariz

Director-Quality Control

Juan J. Marcos

Director-Product Engineering

Jose I. Murillo
Director-Manufacturing
Engineering

Pedro Soto

Gabriel Villanueva Director-Finance

Donald E. Ebert ◊
President, Roll Coater

Larry D. Harper Vice President-Manufacturing

Russell J. McFarren Vice President-Sales

Robert M. Olszewski Vice President-Technical, Director

H. Kenneth Schmidt Vice President-Controller

Bernard Kievit V Managing Director, Arvin-Cheswick Intenational

E. Michael Cowburn Director-Manufacturing and Quality Assurance

J. J. Schellekens Director-Human Resources

W. Stolker Director-Sales

J. Stuart Walker Director-Finance

Robert J. Watson Director-Business Development

Barry W. Lees ◊
Managing Director,
Bainbridge Silencers

Peter W. Howe Director-Finance Eric C. Pace Director-Operations

Bryan P. Partridge Director-Sales

Frank W. Shaw Director-Manufacturing

A. Richard Thomas Director-Personnel

Ronald Welsh Director-Logistics

Dr. H. Robert Leland ◊
President, Calspan

Francis L. Shill Senior Vice President-General Manager Service Contracts Division

John M. Grace Vice President-Product Development

Miles W. Hall Senior Vice President-General Manager Advanced Technology Center

Kenneth J. Langhout Senior Vice President-General Manager-Systems Research Laboratories

Eli Polner
Vice President-Contracts and
Governance

Joseph P. Ruggio Vice President-Finance

J. Kevin Nameth ◊
President, Schrader Automotive

E. Allen Downs
Vice President Technical
Services

Samuel H. Johnston Vice President Human Resources

Gregory P. Jonas
Vice President-Finance

Ronald J. Payne

Vice President-Operations

James W. Thomas ◊
President, Maremont Exhaust
Products

Marlon J. Bailey.
Vice President-Technical
Services and Converter
Operations

Thomas J. Cromer Vice President-Sales Supreme Products

Daniel B. Hicks
Vice President-Finance and
Administration

Mark E. Lawrie
Vice President and General
Manager-Canada

William B. Marwil President, Marwil Products

Alan J. Preslicka Vice President-Operations

H. W. Steele Vice President-Sales

E: Leon Viars ()
President, Gabriel Ride Control
Products

J. W. Brown Vice President-Finance

J. H. Childress

Vice President-Quality

Assurance

Stephen L. Ferguson Vice President and General Manager-OEM Division

Shapoor B. Guzder Vice President/Senior Technical Officer

Maurice Haft Managing Director Gabriel Europe

William H. Houghton Vice President-Aftermarket Operations

Fredrick Keywood Managing Director Gabriel South Africa

Ben R. Jared Vice President-Worldwide Trading

Perry P. Ramsey Vice President-Operations Chickasha Plant

T. A. Swanson Vice President, Human Resources and Information Systems

R. L. Wilson Vice President-Sales

Bruce C. Walters O. Vice President and General Manager, AVM

Robert Pawlak

Director Engineering and
Technology

Steven W. Stanfield Director-Finance

Charles H. Watson ◊
President, Arvinyl

Dan N. Baughman Vice President-Controller

James W. Breeden Vice President-Operations

Edwin H. Dawson, Jr. Vice President-Automotive Marketing

Jon B. Knapp Vice President-Industrial Marketing

Roger B. Thomson Vice President-Product Development

*Office of the Chief Executive ◊Arvin Vice President



J. K. Baker



L. K. Evans



B. O. Pond





Directors and Officers

Committees of the Board of Directors: Audit Committee: Robert E. Fowler, Chairman, Steven C. Beering, Joseph P. Flannery

Compensation Committee: Frederick R. Meyer, Chairman, Joseph P. Allen, Thomas A. Holmes Committee on Directors: Richard W. Hanselman,

R. E. Fowler, Jr.

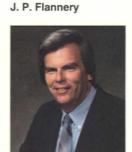


R. W. Hanselman



J. P. Allen





D. J. Kacek



F. R. Meyer



R. M. Ringoen



R. A. Smith



W. F. Meyer

V. W. Hunt



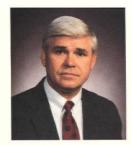
R. R. Snyder



J. T. Atkins



J. L. Berraondo



D. E. Ebert



B. Kievit



B. W. Lees



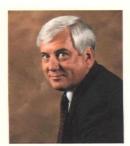
H. R. Leland



J. K. Nameth



J. W. Thomas



E. L. Viars



B. C. Walters



C. H. Watson

